The SPHERE

Vol. CXXX. No. 1700 AUG. 20, 1932. THE EMPIRE'S ILLUSTRATED WEEKLY

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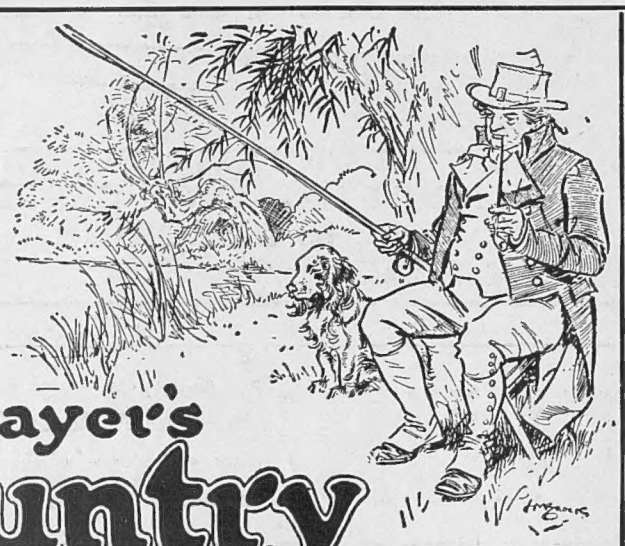

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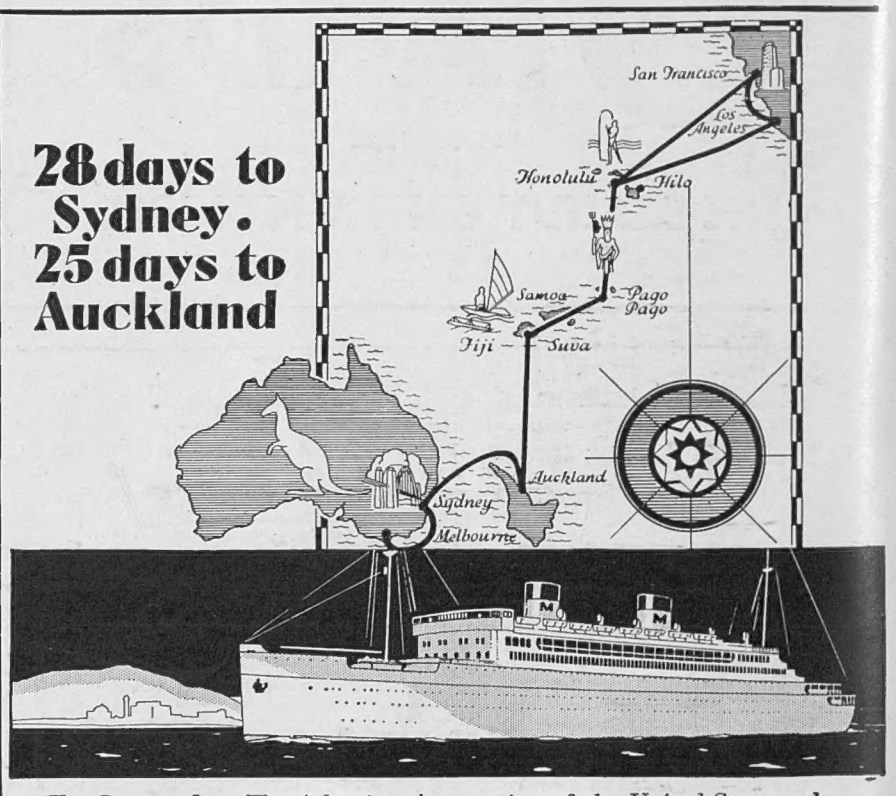

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THE SPHERE

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The Empire's Illustrated Weekly

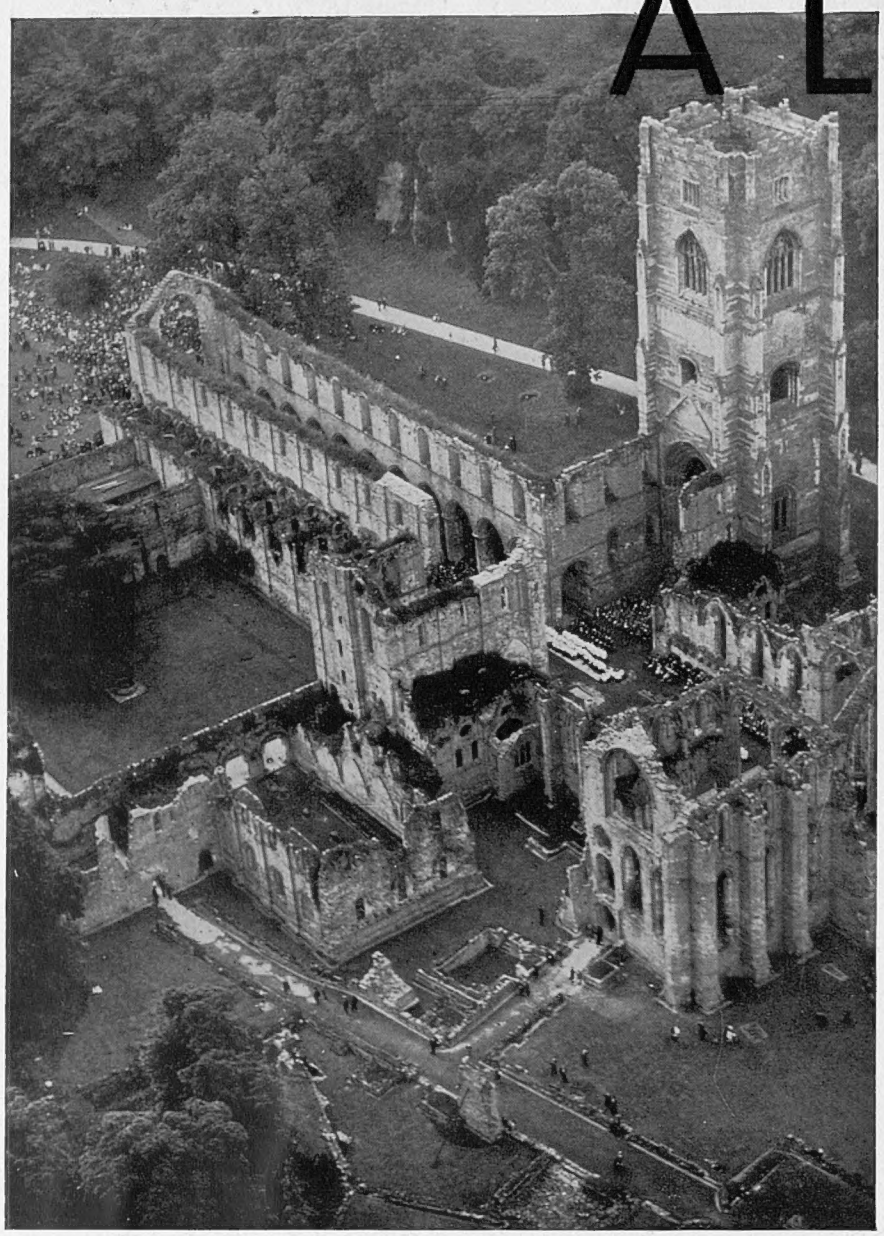
London, August 20, 1932

THE HEAT WAVE BARES THE LIMBS OF LONDON

The recent heat wave which swept over England in a billow of torrid heat has caused thousands of people to seek relief in a cooling dip. The bathing amenities afforded by the Serpentine continue to attract increasing numbers of bathers and swimmers of both sexes. This remarkable picture shows a section of the crowd of 6,000 London citizens who used the "Lido" on one of the days when the heat was at its height

Postage — Inland, 1½d.; Canada and Newfoundland, 1½d.; Foreign, 2½d.

A London New



CELEBRATING THE 800th BIRTHDAY OF FOUNTAINS ABBEY: Over 6,000 people attended the anniversary service on Sunday last in connection with the foundation of Fountains Abbey by the Cistercian Order 800 years ago. The Bishop of Ripon, speaking amid the picturesque ruins of the once glorious abbey, enlarged upon the catholicity of the Anglican Church, which claimed historic continuity with the days when her Archbishop befriended the twelve reformers who came to Fountains from St. Mary's Abbey, York. This view was taken from the air and shows the white-robed clergy and choir in front of the roofless chancel

346, STRAND, W.C.,
Wednesday, August 17, 1932.

THE LEAGUE'S LABOURS.

—The League of Nations slumbers not nor sleeps. The Lausanne Conference laid upon it all the duties entailed in preparing for the coming World Conference on Finance and Economics on which such high hopes are set. Its predecessor of 1927 was acclaimed a triumph and ended in bathos, but since 1927 many bitter lessons have been learned even by the most obstinate and self-centred units in the comity of nations. The rough ground has been made smoother. It is not likely that the Conference will be staged at Geneva. Possibly the venue will be one of the great capitals. The place does not matter. The spirit is willing, and the agenda is all important. The League's next assembly is fixed for September 26, which is nearly a month later than usual, due to the immense arrears of work to be cleared away. It was hoped to make it a short session, but several items on the agenda are important and contentious. *Imprimis*, the League's own budget, with radical economy proposals which will evoke much discussion and recrimination; another, the Lytton Sino-Japanese re-report; another, the harmonizing of the Covenant of the League with the Pact of Paris; and finally, the domestic question of the status and period of service of the Secretariat's chief officers.

HINDENBURG'S TOLERANCE.

—In Germany they decided, rather late in the day to my thinking, that killing is murder and that those who use the sword shall perish by the sword. In a word, the German people are tired of being murdered wholesale by political enthusiasts and have demanded and secured a tariff for these outrages. In Germany henceforth you may not, without incurring a penalty, murder your political rival, or go about killing policemen, or throw bombs into crowds, or set on fire houses full of people. Even now the penalties for committing these little peccadilloes are not as severe as they might be. The President has been very tolerant of such displays of political irritation. He acted, no doubt, from purely patriotic motives when he filled the breach again, and his splendid record has suffered through his altruism. In the middle eighties you cannot hope to drive to a distant market a team of wild horses that never ran in harness together nor knew the discipline of bit and collar. A man must be very much a superman at the height of his powers to play the political game of chess in Germany to-day; to reduce the Nazis to impotence by seducing Hitler to accept modified power, and to achieve that triumph only after the still more difficult feat of compounding with Schleicher and educating von Papen. I take my hat off to Hindenburg still.

OTTAWA.

—It would have been a pity indeed if the man on whom fell most of the hard work, and from whom sprang most of the loyal enthusiasm for the success of the Ottawa Conference, should alone of the leading Dominion delegates find no formula which he could bring before his own Government as a compromise favourable to both sides. There was a moment last week when that curious surprise seemed likely to result. From the least hopeful elements, swift and satisfactory agreement; from the host and inspirer, delays, impasses, dead-ends. That result would have been very little in accord with general expectation. The main obstructions were expected to come from South Africa and Australia. Yet at the moment of writing there seems good hope that there may be respectable and even solid achievements without exception. It is quite certain that the Conference has killed for ever a score of grave misconceptions between the partners, and opened a more hopeful future for further negotiation. But the fact that I was careful to stress from the start still holds good. Behind each delegate stands his home Government, and behind that Government stand the home voters with their varied interests and strong prejudices. Round the village pump even Empire Conferences are still settled.

CASTLES IN SPAIN.

—They do not take enough time to prepare their counter-revolutions in Spain and Portugal. The Latin temperament is quicksilver. With northern races, it is years of patient preparation; in the sunny south, one exuberant night in the wine-shop suffices to perfect a hopeful scheme. In England the dog days and the heat waves set our thoughts towards peace and good will and tolerance for our existing form of government. In Spain, the sun turns passions torrid instead of torpid. I doubt not Don Alfonso will be blamed for this last revolt, although it was clearly as much anti-republic as pro-monarchy. Yet every one of his English friends could go into court and swear his innocence. He has been much in England of late, watching polo and week-ending with his English hosts of old days. It is perfectly true that he keeps abreast of affairs in Spain, that he studies hard the political, economic, and social problems of his country and seeks to find solutions for them; true, too, that he believes firmly that in his own lifetime his dynasty, if not he in person, will sit again on the throne of Spain. But dabbling in intrigue has not occupied a single hour of his days. Rather he has been learning how to live on a narrow income. £8,000 a year is a pittance to a man born an immensely rich autocrat, especially to an *émigré* with a thousand claims on his purse. His private papers would reveal to inspection nothing more incriminating than an account book recording the expenditure of shillings.

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These hasty and improvident plots strike bitterly hard on the Royalist cause and do no service to Spain. Spain should be suffered to try the experiment of a Republic and leave it to time to prove (if it can be proved) the efficiency of that form of government at this juncture. Time, and not force, is the best shot in the Royalist locker. And here are scores of Alfonso's strongest adherents who have been robbed of all they possess and yet have loyally accepted the new regime and taken service under it, who will suffer afresh new insults of suspicion and investigation. Others, like Alba, not so completely spoiled of their possessions, are like to lose the residue that remains. It is always the hotheads who ruin every cause not wholly lost. The Royalists and anti-Republicans will do well to remember that no form of government has any chance of permanent survival if it fail to mete out equal justice to every political interest comprised in the nation.

SUN-WORSHIP.

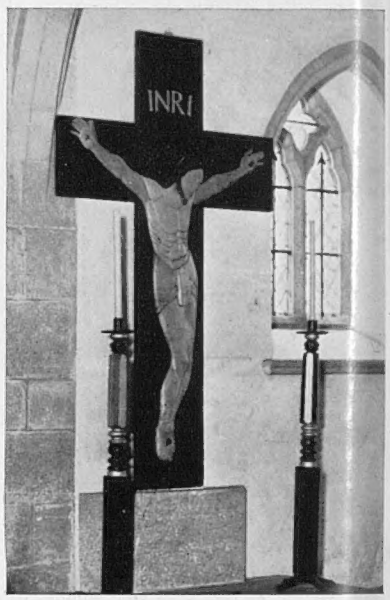
— Lately I have made many journeys in the warm sunshine between Waterloo and Brockenhurst. And being temporarily debarred from reading (for even oculists must have holidays) I passed the time looking idly out of the train windows. All my life I have known the scenery of that journey. The squalor of Vauxhall and Clapham, the smug suburban neatness of Wimbledon and Esher, the chance of a swift thrill at Sandown or Brooklands, the panoply of war and camp life round Farnborough and Fleet, the red old walls of Basing, the bare downs of Winchester, the chalk streams of Eastleigh, the open water and great funnels at Southampton, and the open heaths, pools, and bracken of the forest. But what a change in thirty years! There were heat waves in nineteen hundred, indeed more often then than now. Yet in old days one was impressed by the sight of even a dozen little boys bathing in the streams and canals and pools all the long journey's length. And now? Mr. Herbert, the champion of all those who go down to the sea in slips, would surely rejoice to make that journey. The whole nation has declared itself son and heir of sun and air.

. . . .

Item: Two fat women sunbathing in a Vauxhall backyard. Item: A family party in scant bathing costume playing ball on a Clapham waste space. Item: Group after group of matrons and maids tanning their backs and legs in suburban gardens. Item: In every pool, puddle, canal, stream, and pond between Esher and Southampton, standing room only for half-naked humanity.

NO POPERY.

—The doings of Mr. Kensit in Cornwall were widely published in the press last week. I recall the old fiery Mr. Kensit at Worcester during a certain enthronement in 1902 or thereabouts. A younger generation of reformer has arisen and has just led an attack upon a church in Cornwall.



A CRUCIFIX IN CORNWALL: After the "raid" by the Kensitite party various parts of the Church of St. Hilary, Marazion, were sprinkled with holy water, in order, as the vicar said, that the church might again be a fitting place for the offering of the Holy Mysteries

TOO TRUE.

—From our experience of human nature we extract the guiding principle that men, as they grow older, tend to grow calmer; and that their outlook on life grows more serene, kindly, and tolerant of human frailty, especially where it is evidenced in conventions and compromises; and in a word grow more and more philosophical. It is on this assumption that we have always based our guesswork about Shakespeare and the dates of his plays. It is on this broad assumption that we regard *The Tempest* as his swan song; in that kindly and serene play the storm-tossed spirit comes at last to a peaceful haven of tolerance and forgiveness. But with his usual obstinacy and contradiction Bernard Shaw refuses to conform to our principle. He does not object to be compared with Shakespeare, but he is unwilling to conform to Shakespeare. On our principle, Shaw's latest play should be one of his earliest, and we should place *You Never Can Tell* among the last. Unlike Shakespeare, Shaw appears to hold the view that, if ever a man may be allowed to kick over the traces, to outrun the constable, to steal deer and play truant, it is when he has passed man's allotted span. Our answer to

sletter

that is that Shaw has kicked over the traces since his defiant boyhood and ought by rights to be snug in harbour, forgiving his old enemies, smiling tolerantly on social absurdities and lies, and promising happy endings to the tragedies of youth.

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He, like Shakespeare, wrote his last works in the aftermath of a great age, when hope like a candle was sputtering out and disillusion and lack of faith the disorder of the day. But here he is, at seventy-six, breaking all high kick records and more than ever troubling the critics. They have but one stock phrase in criticism of his plays —"a tract, not a play." They have said it *ad nauseam*, and lest they be forced to say it again, he says it for them. The play is over before it is well begun and the rest of *Too True* is sermons. But plays, judged by the conventional yardstick, are often dull and often money losers; while Shaw makes others laugh, and grows fat. Why then in old age should we demand of him that he grow tolerant of our failure and our conventions?

MOTOR - COACH TRAFFIC.—The question is: Are second thoughts always best? Other things being equal, second thoughts are more expensive than first. The Traffic Commissioner, charged with the difficult task of pruning the luxuriant herbage of the new beanstalk of motor-coach traffic, wielded his axe with a will and cut half way through the trunk. Now he has cast his axe aside and is cementing and binding up the wounds. The final report of Lord Amulree's Commission recommends the annulment of more than half the restrictions on "superfluous" services imposed by the Commissioner. At first blush, what an example of official futility, what an expensive way of giving a hint of moderation to the exuberance of coach proprietors! But coach proprietors have their rights like other citizens, and all the pros and cons of a complicated business are not to be gathered in a few months. If the authority of the Traffic Commissioner be somewhat blown-on, doubtless a number of injustices will be set right. It is fair to say that Lord Amulree's Committee have endeavoured in their recommendations to act on clear and approvable guiding principles. Where coach services compete in the metropolitan area with an adequate rail service—tube or otherwise—whose adequacy is proved by the poor receipts of the coach service, the latter service is to be discontinued. Where a coach service runs into a rail-head and feeds an existing underground rail service into the heart of London, it receives an official blessing. That is right. But it remains to say that the axe will be needed again and must never be allowed to rust. It is likely, however, that the broad hint given to coach interests will modify much of their enthusiasm for further development and exploitation of routes into London. There are still far too many coaches plying into London.

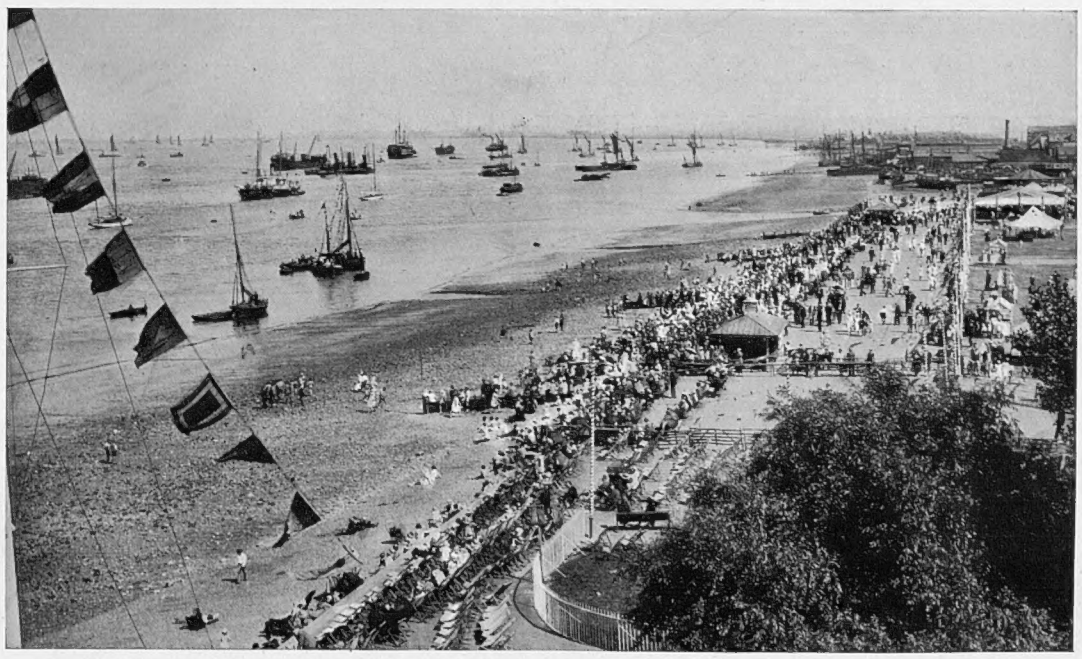
THE GREAT CARNIVAL.—Sherlock Holmes, on his rare and much-needed holidays, invariably came in for a *cause célèbre* and found himself fated to enjoy a busman's holiday. He was the head of his profession. How different my case, yet how similar the result! The great carnival at Milford-on-Sea forces me to enter into vain competition with the local journalists (who do their job so thundering well) and tell London something about this notable affair. It was so full of life, humour, and colour. It started with such reasonable punctuality. The band arrived practically on time. The sun burst out at zero hour and held on till a moon like a yellow bandbox took over at nightfall. The queen, in a farm wagon decked with flowers, headed the procession behind the band, and we all felt, as we looked at her, that she was travelling direct towards Hollywood, so lovely and so calm was she. Followed the fire engine; an epitome of New Forest life in woodland scenes, with a wood nymph that made the most disillusioned heart beat twice as quick; a presentation of the Lewis Carroll immortals, especially apt so near the home of the original Alice; houses on wheels complete to the last flower-pot and black cat; funny policemen, boys with faces back and front, naked men in scores, black and white, fair ladies bound for Hollywood via Banbury Cross, funny cyclists, hobby horses. With my hand on my heart I declare it knocked the Lord Mayor's Show silly. For one thing it was a short procession, ideally proportioned indeed. And when night fell, the village green lay glistening white in confetti, and across the narrows of the village street fairy lights twinkled in festoons above the thronged revellers and dancers of Milford, Milton, and Lymington, and the golden light of the moon revealed the fact that almost every nice girl loves a sailor.

THE OLD STAGER.

HOT WEATHER SCENE BY LONDON'S RIVER: At several points down the Thames there are spots where the local inhabitants can enjoy the amenities of the river. One of them is at the King Edward Memorial Park, Wapping. This park was made not many years ago on the site of an old fish market. The entrance to the tunnel connecting with the Surrey shore is seen on the right. A great number of steamers pass this spot in order to enter the Shadwell basin

A RECORD SWIMMING CROWD AT ENFIELD: The new swimming bath at Enfield, our biggest swimming pool, was filled to capacity with 5,000 people on Saturday of last week

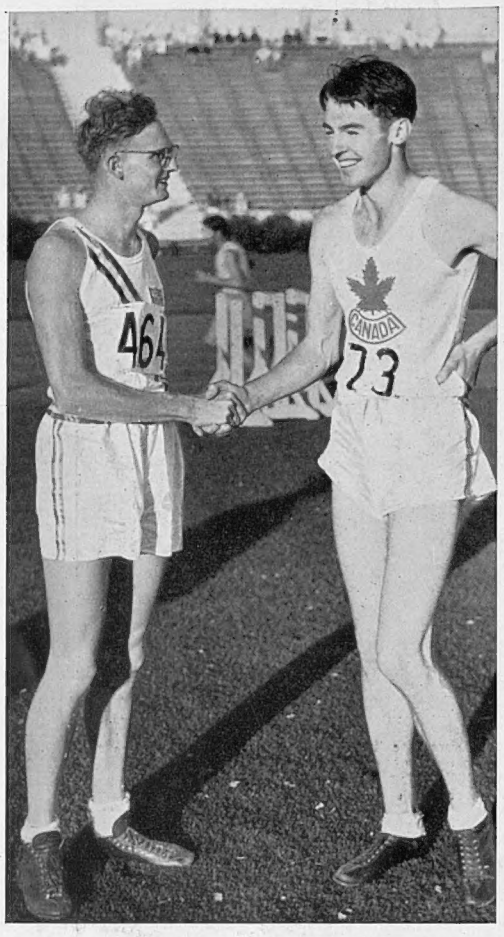
ANOTHER OF THE THAMES-SIDE BATHING SPOTS: Greenwich has an expanse of natural beach on which children paddle at low tide. These steps are just in front of the Royal Hospital



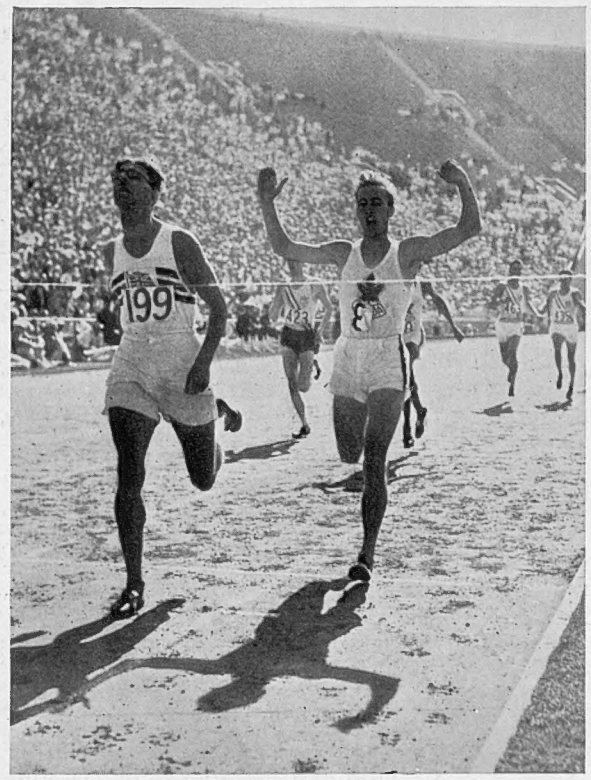
ANOTHER RIVERSIDE PLEASAUNCE: Gravesend also has a very pleasant riverside frontage where its residents can take the air on fine evenings, and the sight of the big ships slipping out to sea—if the tide should agree—is something which one does not readily forget

OLYMPIC SPORT RECORDS

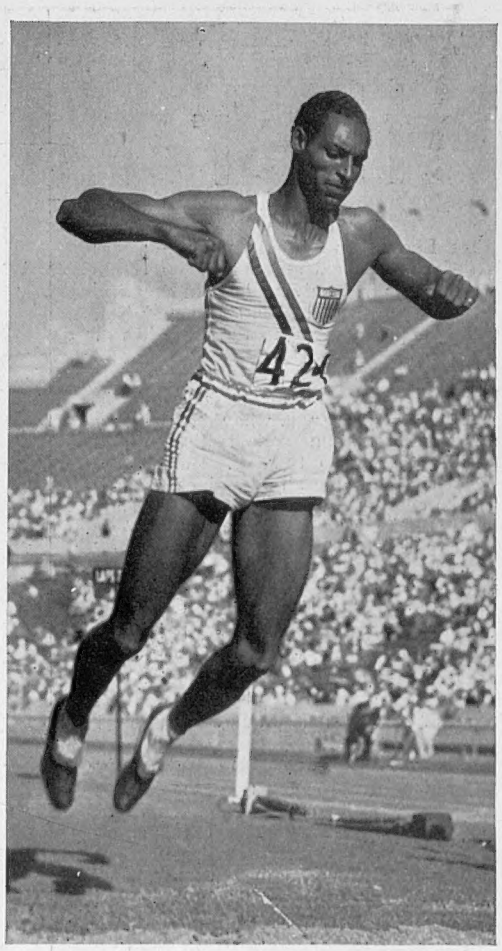
And the Twelfth in Scotland and Yorkshire



A HIGH JUMP RECORD: Robert van Usdel (U.S.A.), who finished second in the Olympic high jump, is seen shaking hands with Duncan McNaughton (Canada), who won with a leap of 6 ft. 5⅝ in.



THE 800-METRE RECORD: Tom Hampson (Great Britain) is seen winning this race in 1 minute 49·8 seconds, with Alex Wilson (Canada) second. Phil Edwards (Canada) was third

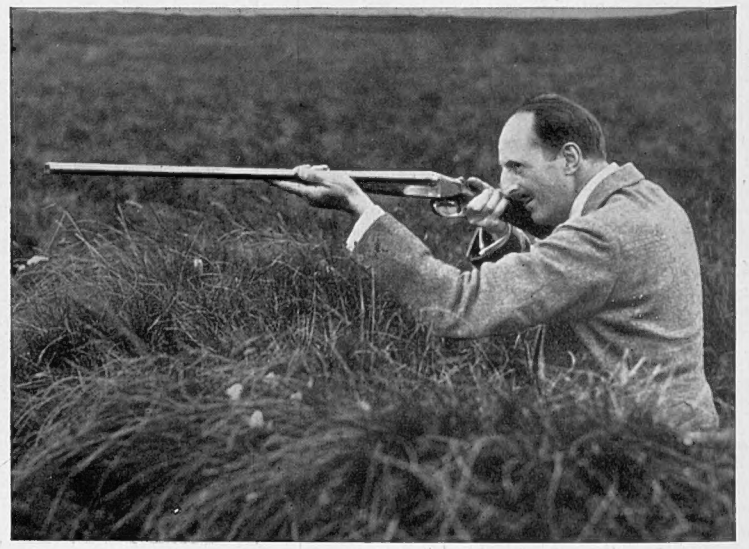


THE BROAD JUMP RECORD: This was won by Ed. Gordon (U.S.A.) with a jump of 25 ft. ¾ in. Charles Redd (also U.S.A.) took second place with 24 ft. 11⅛ in., Japan taking third place

GROUSE SHOOTING SEASON AT BOLTON ABBEY: The Duke of Devonshire is seen leading a party across a stream on their way to open the shooting on Rocking Moor. The party of eight guns included the Duke, the Marquis of Hartington, Lord Charles Cavendish, Lord Richard Cavendish, and Lord Burlington. Rocking Moor is in a very beautiful district of the West Riding

PERTH HIGHLAND GAMES: These were held on Saturday of last week in brilliantly fine weather, and everyone pitied the drummer who had to wear his wolfskin apron under a burning sun

A REST ON THE TWELFTH IN SCOTLAND: The actual morning of the Twelfth broke very stormily, torrential rain falling, conditions clearing in the latter part of the day. Hill pony drivers are here seen resting at Auchnafree



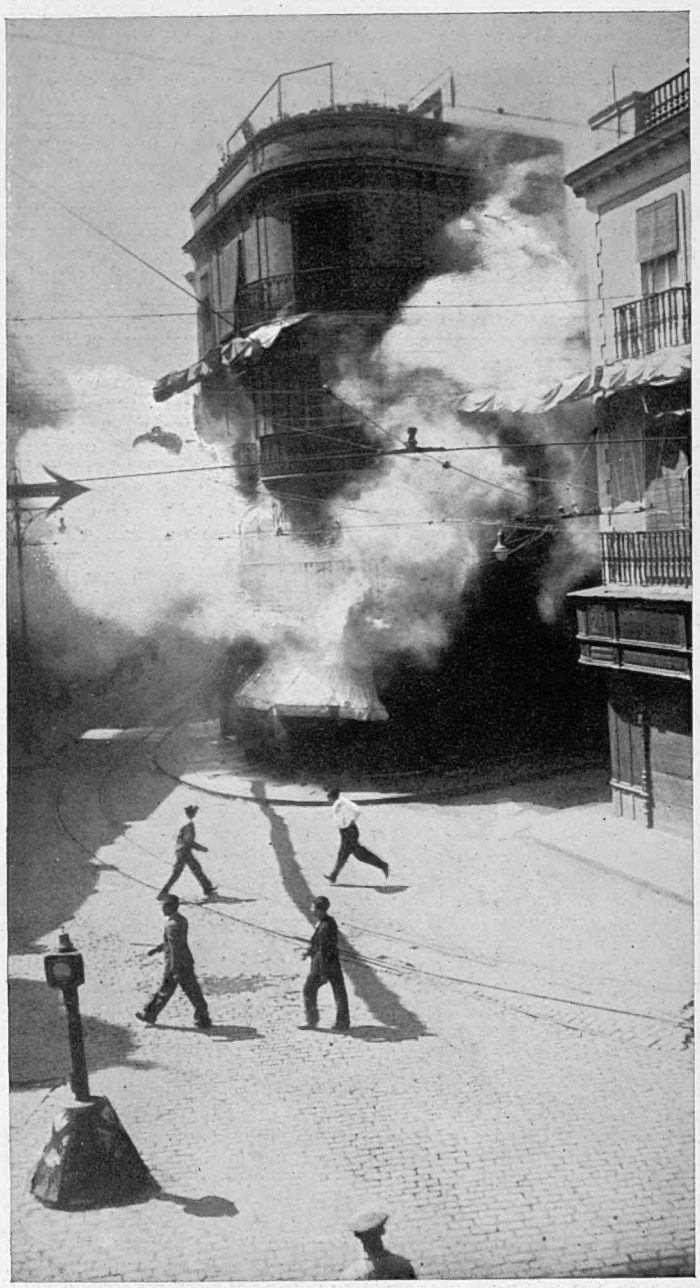
A SHOOT AT KINPURNIE CASTLE: Captain Archibald Maule Ramsay, M.P., of Kellie Castle, Arbroath, is here seen at the butts during Sir Charles Cayzer's shoot at Kinpurnie Castle on the Twelfth

TROUBLE IN SPAIN: The Abortive Seville Revolt

LEADERS OF THE SEVILLE REVOLT: General Sanjurjo is seen in the centre of the group talking to General Gonzales y Gonzales, who acted as his assistant during his brief spell of authority in Seville

COUNTER MOVE BY THE REPUBLIC: The military forces of the Spanish Republic were at once moved against Seville, no success having attended the Madrid effort. Troops are here seen marching through the capital for entrainment to Seville

OUTBREAK AGAINST MONARCHISTS: Following the suppression, attacks were made upon the property of Monarchist sympathisers. The palace of the Marques de Luca de Tena was set fire to, pictures and other valuables being removed from the building

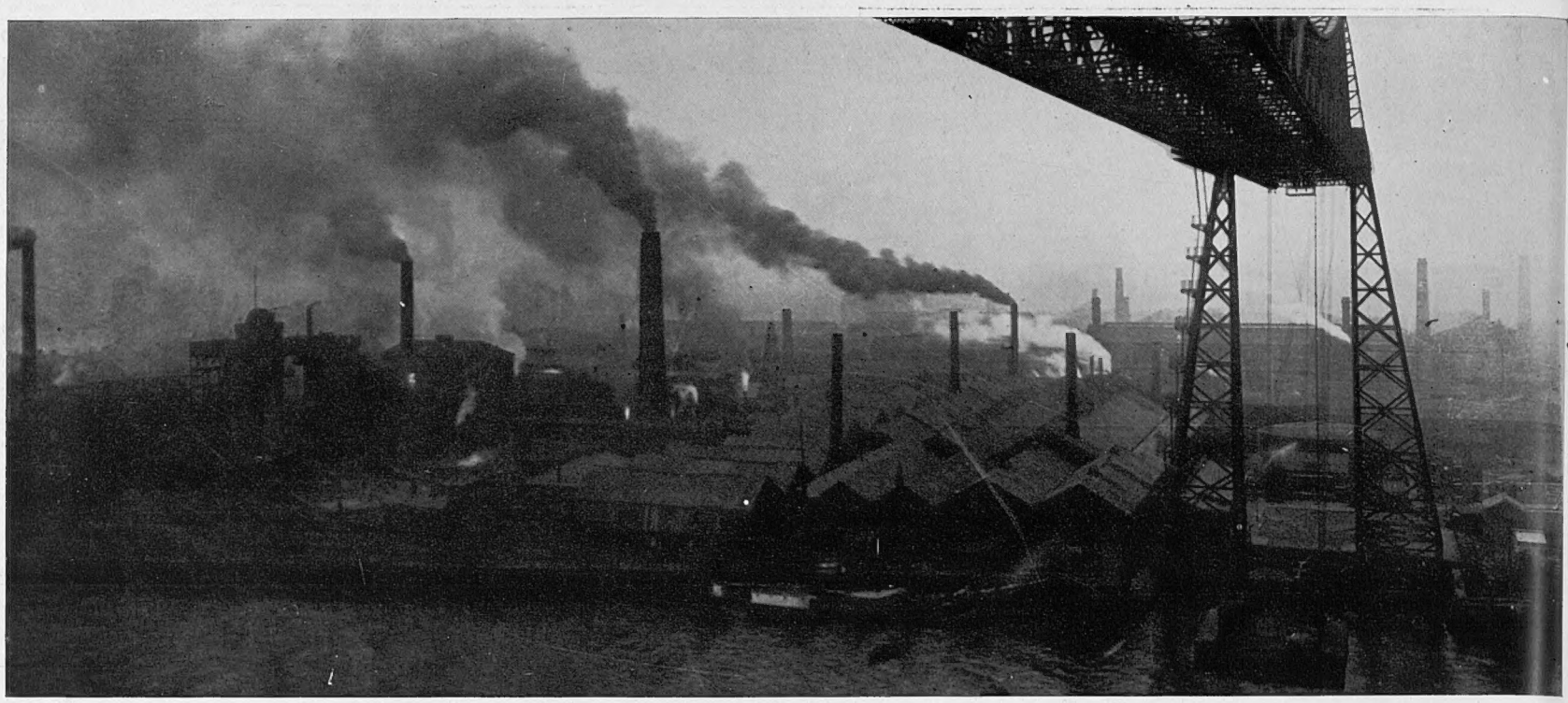


REPUBLICAN REPRISALS AT SEVILLE: After the suppression of the brief revolt the headquarters of the Monarchist sympathisers were set fire to. Smoke is here seen issuing from the building

PROMPT RECOGNITION OF REPUBLICAN EFFICIENCY: The Republican Civil Guards who were wounded in the disturbances were promptly decorated for their efficient service to the Republic by the President

A REPUBLICAN DEMONSTRATION IN MADRID: Following the suppression of the revolt a number of Republican meetings took place in the streets in Madrid and other cities, Republican banners being carried by the crowds

On Thursday of last week the Republican Government of Spain re-established its authority in Seville. General Sanjurjo, who had proclaimed himself Captain-General of Andalusia, fled from the city, and was easily captured by a single policeman covering the car in which the general was seated. The origin of the whole revolt seems to have been very mixed in its motives and its collapse had almost the character of comic opera. The outbreak, however, had its aftermath of incendiary outbreaks against monarchical sympathisers. The historic Church of St. Nicholas at Granada was completely destroyed, the images being dragged on to the plaza and there burned.



THE HEAVY INDUSTRIES ARE NOT DEAD: Though all our chimneys are not smoking, we must consider ourselves fortunate when compared with other countries. The heavy industries are not dead. It is a question of readjustment says Mr. Baker-White

Big Ben struck mid-day as our car passed the Houses of Parliament. When we ate our lunch we had left behind us the symbols of the new industrial revolution, the busy white factories of the Great West Road. Another 140 miles and we were in Cardiff, to find ourselves in a new and very different world. For this reason. In London you read of industrial depression and the problems of the basic industries. In Cardiff you are face to face with grim facts; the basic industries are all about you. Depression is not an impersonal thing in Cardiff. It stares you in the eyes and you cannot avoid it. You find yourself searching for the answers to those big questions that form inevitably in your mind. What is the truth about the basic industries—coal mining, shipbuilding, iron, and steel manufacture, and engineering? What is the lot of the workers dependent upon these industries? And what of the future? We went to Cardiff to visit old friends; we remained to seek the answers to these questions.

Just about 100 years ago the citizens of Cardiff were laying the foundations of their city's greatness. The industrial revolution was in full blast, new coal-mines were opening every week, and there was an incessant demand for iron for railways, ships, docks, and buildings. The people of South Wales grappled with the problem. They opened up the immensely rich coal valleys, they built great docks, iron and steel plants, and new towns and villages for the workers. Hampered by geographical difficulties, they brought into being the most highly industrialized area in the world of those days. And now the descendants of those builders are facing another industrial revolution, the development of new industries at the expense of the old, the displacement of coal by oil, of steam by electricity. Facing, too, a world economic depression much greater than that which followed the fall of Napoleon, yet grappling with the problem just as did their forbears.

The following simple figures may give some idea of the enormity of the problem South Wales, the North-East Coast, and the West of Scotland—the three greatest centres of the basic industries—are having to tackle. In 1913 the mines of great Britain produced 287,000,000 tons of coal; in 1931 production amounted to 223,000,000 tons. This means a fall in production of 64,000,000 tons. It is calculated that every 1,000,000 tons of coal produced provides employment for 4,000 miners; so on the basis of this calculation there is work for a quarter of a million fewer miners to-day than before the War. This is an approximate calculation, but it is borne out by the official figures. There are about 1,100,000 insured work-people in the coal industry; in July something over 220,000 of them were wholly unemployed. An approximately similar number were "temporarily stopped." The revival of the coal industry is being hampered by general bad trade, exchange restrictions and embargoes in foreign countries operating against coal exports. But we must face the fact that when the revival does come the industry will be very unlikely to require all the workers at present attached to it. There are something like 100,000 to 150,000 insured mine workers who may never be wanted down a pit again. That is the first factor in the problem.

The shipbuilding industry, concentrated mainly in the same areas, provides the second section of the gigantic problem that is being faced by those whose task is industrial reconstruction. The gross tonnage of merchant vessels under construction in Great Britain and Northern Ireland at the end of the last quarter amounted to 280,692 tons, as compared with 372,973 tons at the end of March, and with 555,603 tons at the end of June, 1931. The present total of tonnage in hand is lower than any comparable figure recorded by Lloyds in a period of more than fifty years. These figures are sufficiently depressing, but the miles of idle, empty ships waiting for cargoes in the ports and rivers of the world provide the reason. Yet Britain is holding her own with other shipbuilding countries, for she is building over a quarter of the total tonnage under construction in the world, and things are just a little better than they were three months ago. But there is a terribly long list of idle yards. Of the shipyard workers in South Wales about 4,500 or 65 per cent. are out of work; in Scotland the total is over 37,000, or nearly 70 per cent., and in the north-eastern area 39,000 odd, or 69 per cent. It is useless to refuse to recognize that it will take years to absorb the world's surplus tonnage, just as it is futile not to face the fact that while 88 per cent. of the world's ships were coal fired in 1914, 54 per cent. only use coal to-day. The shipbuilding industry is engaged upon a process of reconstruction, involving the scrapping for ever of many yards and slips. It is readjusting itself to new conditions, and so there has to be a readjustment of the workers.

Factors three and four of the problem are provided by the iron and steel and engineering industries. There are 356 furnaces in Britain; 69 of them were in blast last month. About 39 per cent. of the pig-iron workers, 48 per cent. of the tinplate workers, 47 per cent. of the iron and steel workers, and 26 per cent. of the engineers are without work. Yet, in the face of these figures we must consider ourselves fortunate. Things are worse in other countries. The United States is producing something like 60 per cent. less pig-iron than a year ago. The decline in France is about 37 per cent., in Germany 31 per cent., in Britain 9 per cent. The States produced in May last less than half as much crude steel as a year before. The decline in French production was 34 per cent., in German 16 per cent., and in British production 4 per cent.

Coal, iron, and steel are having to tackle the problem of operating on a different scale and on different systems from those of the past. Our basic industries most emphatically are not dying or dead. Go to South Wales and you cannot fail to be struck by the way in which mine-owners and coal-exporters are fighting for their industry. Go to the Clydeside, the Tyneside, or the Teeside and talk to the shipbuilders whose faith in their ability to build the world's finest ships is unshaken. Talk to the ironmasters and engineers whose determination is that of the metals they fashion. Above all, talk to the workers of the depressed industries, and be amazed by their courage, patience, and fortitude in adversity.

I had not been up the Welsh mining valleys since 1925, and seven lean years have wrought many changes. For example, I found Blaina strangely empty and silent for a mining town. I was soon to learn why. Over 28 per cent. of the population has migrated since 1921 in search of work elsewhere, and the same process has been going on in all the mining centres. Abertillery has lost nearly 30 per cent. of its citizens in the last ten years, Rhondda and Ogmore 22 per cent., and Bedwellty over 20 per cent. A survey recently conducted by the University of South Wales and Monmouthshire showed that between 1921 and 1931 there was a net loss by migration of 242,000 in South Wales, due, of course, to industrial depression. The loss was least in the anthracite coal region, where there are other industries—Carmarthen actually gained a little by migration—and greatest in the steam coal region. This migration has had a curious effect in that the men outnumber the women in the mining valleys, and the proportion of women working outside their own homes is lower than in any other part of the country. Women and girls are moving away from the colliery districts even more rapidly than men and boys, and in Cardiff and Newport there is a continually increasing excess of females over males.

Things are pretty grim up the mining valleys to-day. Outwardly they look the same as they ever did. High sombre hills, pit-gear black against the sky, massive disfiguring heaps of pit dirt, rows of grey cottages and cobble streets. Washing, wireless aerials, chapels, allotments, dogs and rows of miners squatting on the pavement edges. But talking to men and women I had met last seven years ago, I realized the difference. Many, too many, of the collieries are silent, many of the dirt heaps smokeless and cold, while something like 56,000 miners never have occasion to take their pit-clothes from the hook behind the washhouse door. Yet you find most of them very patient and waiting for a revival of the industry that is part of their very souls. I talked to six men at Blaina, not one of whom had been down the pit for over a year. All of them married, all with children. Two of them had been away across the border into England on road-making relief schemes, but they had felt like strangers in a strange land. "There wass no chapel, look you," one explained. The other had missed his singing, and they were both in some ways glad when the work came to an end. One of the party did not address me direct for he spoke no English, only Welsh. He told me of his brother-in-law who had migrated to Cornwall and was doing well daffodil farming, but the language difficulty, if nothing else, kept him at Blaina. He helped his wife make patchwork quilts, and on the sale of these the family lived.

Another of the party had taken up wood-carving, and you will find a revival of these cottage crafts, including furniture-making and the weaving of tweeds, all through the valleys. Since the depression set in various bodies have been at work in South Wales combating the evil effects that prolonged idleness have on mind and body. Part of their educational work has been to revive weaving, embroidery, and quilting, the industries of the valleys before the Industrial Revolution. Boys and men have been put on to wood-working and poultry-keeping, girls on to making the special heavy miners' socks, while at Brynmawr the old local trade of making miners' boots has been successfully revived. At other places the miners are keeping their muscles hard on voluntary work of public value. At Llanelly they are converting a huge heap of pit dirt, one of the ugliest things in the world, into a playground for the children. At Bargoed you can see workless miners sitting at their benches making toys for sale in London. All this may not be doing a lot towards finding work for a surplus of 30,000 to 40,000 souls, but it is a step in the right direction. At any rate it is fighting the demon of idleness. I saw some of the men and boys who had let themselves go. They were pathetic figures, who will be unfit for work as long as they live.

Very wonderful people are the women of the valleys, the wives and daughters of the miners. Many of them have to "make do" with very little and often with less and less, clothes being an even greater problem than food. Greatest of all problems are children's boots and clothes, but they seem to be doing wonders. Miners and their wives are in many ways a race apart, and there was a curious similarity between the miners' homes I went into at Blaina and elsewhere and those I had seen in the Ruhr a few months ago. In those neat little rooms and kitchens with the shining stoves they know all about the creed of "biting on the bullet."

There is precious little Communism to-day in the Welsh mining villages, or, for that matter, in most of the mining villages of Northumberland and Durham. It is only in Scotland that you can find any appreciable number of Red miners. We went to Mardy; it always used to be known as "Red Mardy," as this was formerly a Communist stronghold. In 1925 I saw an audience of 4,000 cheer a Red speaker to the echo; to-day it is very doubtful whether the finest orator in the Communist Party could raise an audience of 200.

THE FOUNDATIONS OF BRITAIN

A Tour Round the Basic Industries of England and Wales with a Special "Sphere" Commissioner During August Results in Many Interesting Discoveries—the Decline in Communistic Feeling Among Others—and the Great Courage which Persists

By J. BAKER-WHITE

It is no exaggeration to say that Communism brought Mardy very close to ruin, and the miners and their wives have not forgotten it. All through the valleys the Reds have not a tithe of the following they had at the time of the 1926 stoppage. *The Miners' Next Step*, the creed of Arthur Cook, was written by him and Noah Ablett in South Wales and published in Tonypandy, but you will find very few miners who support its doctrines to-day. Nor are they bitter against the coalowners. The hatred and bitterness of the 1921–6 period have gone, and it is generally recognized that the "bosses" too are having a pretty thin time. What bitterness you find in the valleys is mostly against the Means Test, not against the coal-owners.

We met two miners' agents—one of them had worked with Cook and Ablett in the Unofficial Reform Movement before the War—who were very careful to emphasize that nationalization of the mines was still part of the policy of the South Wales Miners' Federation. From their conversation it was quite plain, however, that they never expected it to become an accomplished fact in their lifetime. They were much more interested in the efforts of a certain colliery company to secure an important foreign contract. I knew many of the Communists in the valleys in 1925. This time I tried to find six of them. Three of them have left South Wales for good; two of them I found, but they were no longer Communists. One of them is still an ardent Red. At present he is serving a sentence in prison for his political activities, but his neighbours did not seem very interested or indignant. Up and down the valleys there seemed to be much more interest in the Eisteddfod than in Communism.

One young Red who tried his tongue and his theories on us at Aberdare was told very plainly and bluntly by his fellows to shut up. Seven years ago he would have been pretty certain of an attentive audience. Thus have things changed in the valleys, and it is the same in Durham and Northumberland. The miner was always a keen politician, and he is no less keen to-day. He reads more than ever, but he has seen through Communism. It is obvious that many of them are convinced Socialists, but they voted National last autumn because they disliked a Government that ran away in the hour of crisis. Here is a fact that shows how things have changed. The organization with which I am connected, the Economic League, sends speakers to lecture on economics to nearly all the mining towns and villages on the North-East Coast, and other areas. They get good and attentive meetings, with plenty of argument and discussion. Often their audiences invite them to come again. Six years ago these speakers had to fight for a hearing; abuse and physical violence from organized gangs of Reds were not unusual. Sometimes they were boycotted, other times there was organized opposition to drown their speeches. I have in my possession a report written in 1926 by a foreign Communist who visited this country to investigate conditions for Moscow. He described the miners as "the shock troops of the proletarian attack." He said that at Ammanford in Wales conditions were "ripe for a revolutionary outbreak." I told them about this in Ammanford a few days ago, and they laughed.

From the valleys we went to Penarth, a pleasant seaside "dormitory" town outside Cardiff. A casual visitor might well remark, "What a lot of smart, well-dressed men there are about with time on their hands!" That is quite true, but offer one of these men a job, even as a deck-hand on a tramp steamer or as a waiter or a cinema attendant, and nine out of ten of them would jump at it. For Penarth to-day is full of mercantile marine officers "on the beach," while their ships swing empty on rusty anchor chains, their bottoms thick with weed. There is no unemployment pay for ships' officers, nothing except their savings and the charity of their friends. There is real tragedy and want hidden behind the neat lace curtains of many of the double-fronted villas of Penarth. Not long ago a man with a master's ticket and decorations for war-time gallantry was picked up in the street seriously ill from lack of food. There is more than one ship sailing from British ports to-day in which the entire crew is composed of certificated ship's officers. The shipping papers are full of advertisements such as the following: "Engineer, 30. First Class B.O.T. Motor Certificate, requires berth; would accept any position, at present disengaged, go anywhere." "Master Mariner, excellent references, unemployed owing to depression, good general experience, seeks berth, Master, Mate, or Second Mate." From Penarth esplanade you get a fine view of the entrance to the Port of Cardiff and too many foreign ships, manned by foreign crews, carrying cargoes of British goods. But you will hear little complaining and bitterness in Penarth, for that is not the way of the men of the finest merchant marine in the world. They just go on being patient.

Going about in the areas where are the basic industries, you find that men to-day are asking one another the same question: What does the future hold? And instinctively you turn to the coal industry, the base of all industries, to provide the answer. To-day the coal export trade is faced with difficulties that seem almost insuperable. To-day nearly half our coal exports are subject to heavy restrictions. In Germany, Belgium, France, and Spain restrictive licences and quotas, in Italy a special landing tax, in the Irish Free State a tariff intended to be prohibitive. Yet in the markets where trade is still unhampered, such as Scandinavia and South America, there is a small, but quite definite, improvement. In the first half of this year our coal exports to Canada were double those of the same period of 1929. In the past three years the coal industry of this country has been extensively reorganized and is better equipped for selling than ever before, but there can be no real expansion in our export trade until international restrictions are swept away.

So far as the future is concerned there is hope for the industry in the scientific treatment of coal for sale, either as pulverized or collodial fuel, as low temperature smokeless fuel, or as oil from coal. The Mining Association, the owners' organization in conjunction with the Coal Exporters' Federation, the Coal Merchants' Federation, and the National Council of Coal Traders, has just formed the Coal Utilization Council, whose purpose is to promote an extended and progressive use of coal and its products. Thus is the industry looking forward, and those who are in it, both miners and owners, are convinced of its possibilities. The British public too must play their part, becoming what the Minister for Mines has aptly styled "coal conscious." If anyone is doubtful about the necessity for this, I recommend them to spend a few days in the coalfields.

So far as the shipping industry is concerned, it is the visible barometer of the other great industries, and its improvement must follow upon theirs. Similarly, the shipbuilding industry has got to wait for the absorption of the present surplus tonnage or until there is a revolution in ship propulsion and construction. The process of reconstruction, of closing surplus yards, and concentrating production on the most economic basis is going on, and when the time comes the industry will be ready. Just now the shipyard workers of the Tyne and the Clyde are waiting anxiously for news of the naval construction contracts. Those enthusiasts who are going about the country advocating a still smaller British Navy would be wise to give these areas a miss. The new ships due for building will cost about £20,000,000 and about £12,000,000 of this sum will be paid out in wages. Iron and steel manufacture is, of course, dependent upon the state of industry as a whole, as is engineering. Nobody need have any fear for the future efficiency of these industries; they too are adapting themselves to the needs of the second industrial revolution.

There remains the problem of absorbing the surplus labour of the basic industries—the miners of the Welsh villages; the shipyard workers of the Tyne, the Tees, and the Clyde; the engineers of Middlesbrough; and the ironworkers of Durham who are at present workless. The best method, of course, is the establishment of new industries such as the manufacture of artificial silk, wireless goods, food products, and gramophones, as has been done in the Midlands since the construction of the heavy industries in the Black Country. In this respect South Wales has a long way to go, for it has few industries of extent and importance outside the "heavy" group. There has got to be a change of mind as well among some of the people in the valleys. You will find plenty of them who still think that hewing coal and working iron are the only dignified occupations. They look down on the workers in the "light" industries, and scoff at the efforts of those who are working in the cottages making quilts and tweeds for sale in that far-away place, London. Yet this view is comprehensible.

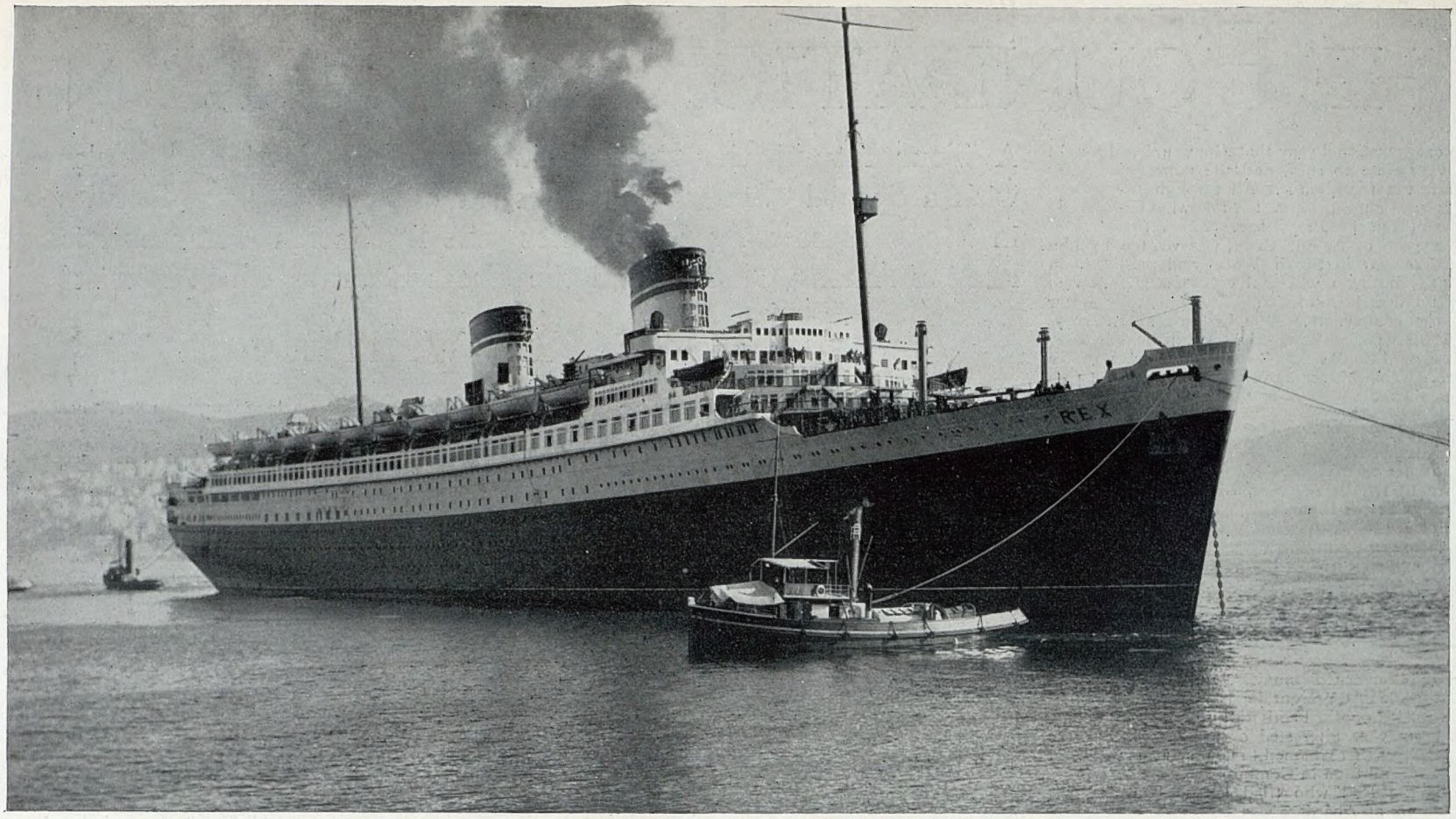
Such people probably have never been outside the valleys except to go to Cardiff. I know a man at Seven Sisters. He has a brother who is a check-weigher at Ystradgynlais. It is not more than ten miles across the hills, but he has not seen him since the War. The fall of coal and the blinding scorch of molten metal are to them the very breath of life. They are proud of their muscles, proud to be the basic producers. Can it be wondered that they are rather contemptuous of the "weaker brethren"?

The high rates prevailing in many towns are a definite handicap to the establishment of new industries. At Merthyr, for example, the rates are 25s. 4d. in the £, at Abertillery 22s., at Bedwellty 23s. 2d., and in many towns they are over 20s. in the £. That is not encouraging to industrialists seeking new centres of activity, even with the relief afforded by the De-rating Act.

The South-West of Scotland has better hopes of building new industries; in fact, the process has already begun. Those whose business it is to make industrial surveys calculate that by 1934 the new industries in this area will be providing employment for something like 26,000 more male workers than to-day, while there will be no surplus of female labour. Taking the areas of heavy industry as a whole, it must be recognized that recovery will be slow. It is no use pretending that an immediate revival of trade is round the corner, but enterprise and invention are moving forward. The feet of the nation have left the shifting sands of 1930 for the hard road of 1932.

It is often said to-day that the heavy industries are dead or dying. It is utterly untrue. Go to South Wales or Newcastle or the Clyde and make that declaration; they will fling the answer back in your teeth, maybe with a fist behind it. It is not a question of dying; it is a question of readjustment. In the past ten years I have spent no little time in the centres of Britain's heavy industries. I have seen a lot that is grim and sad. A broken man, an idle colliery, and an empty ship are tragic things. I have seen, too, much patience and fortitude both among master and man. When the historians come to write the industrial story of this half century, they should take care to pay full tribute to those who work at the coal-face, fashion mighty masses of molten metal, rivet the sides of great ships, and sail them across the seas. They have travelled a very hard road these last few years, but they have lost none of the courage that built Britain's industrial greatness. Their hopes and thoughts are of the future.

IN THE WELSH VALLEYS: Many of the miners of Wales have not stood at the screens for over a year, but they are very patient, says Mr. Baker-White who has just returned from Blaina



THE NEW TWIN-FUNNELLED ITALIAN LINER *REX*: This, the latest of the Italian *de luxe* liners, was launched just over a year ago. She is now rapidly approaching final completion. This picture was taken when she made her first engine tests down the Ligurian coast

SOMETHING NEW IN 'PLANES: The monospan aeroplane made its first flight at Croydon aerodrome a few days ago. There are two propellers fixed in the 'planes

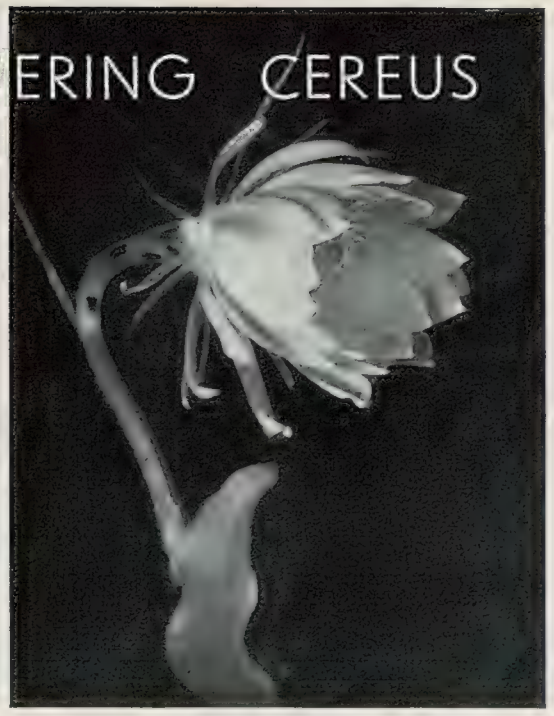
ROOF LIFE IN LONDON: Some pretty bathers, having taken advantage of the bathing-pool at the Piccadilly Hotel, take a cooling drink. During the heat wave every possible bathing-pool was besieged by an eager crowd of bathers and swimmers

FRANCE SEEING LONDON: The metropolis is very full of visiting foreigners at the present moment. Crowds of all nationalities are visiting the Tower. Here is a French visitor talking to a yeoman-warder

NIGHT-FLOWERING CEREUS

7 P.M.: The bud starts to open, poised delicately on its curved stalk

7.30 P.M.: The petals begin to unfurl in all their tender grace



8 P.M.: The stamina become visible as the petals unfold

8.30 P.M.: The splendour of the flower approaches

9 P.M.: The night blooming cereus is nearly in full flower

9.30 P.M.: The full bloom in all its petalled glory

The six pictures of the developing flower above show an example of Epiphyllum macropterum, one of the numerous species of night-flowering cacti. The generic name Epiphyllum (meaning "on the leaf") was originally given to one of the species, because the stem is flat and leaf-like, so that the flowers look as if they grew out of leaves. Epiphyllum macropterum is a native of Costa Rica, and like most of the genus is found as an epiphyte on branches of trees, a situation for which its fleshy water-holding stem makes it well adapted

FROM THE ROYAL BOTANIC GARDENS, KEW: A night-flowering cactus or cereus. This species is Cereus Triangularis, the flowers of which open at dusk, remaining open until about 8 a.m. It grows all over the roof of the Succulent House; its creamy white blossoms, with buff to brown outside segments, are 9 in. to 12 in. in height. On three consecutive days the cactus showed five, fifteen, and ten blooms

GIPSIES of HUNGARY

MOTHER AND CHILD: A typical couple to whom water is unknown save as a drink

A DAUGHTER OF THE NOMADS: A little Hungarian gipsy girl in front of a typical tent pitched in one place for a night or two only

THE CAREFREE LIFE OF ROMANY: Song and dance appear to be the main concerns of gipsy life. A non-musical gipsy is, perhaps, even more rare than an albino negro; and, though untrained in harmonics, their ear never betrays them

THE SACRED DANCE OF ARAGON: All over the three Spanish Provinces which formed the old Kingdom of Aragon (Saragosse, Huesca and Teruel) "La Jota" is something sacred for the people of that country. These picturesque scenes can be seen at any time in any Aragonese village, as the people are always ready to sing and to dance their beloved "Jota," but more especially when the traditional feasts of the year arrive

Several efforts have been made in Hungary to convert the nomad gipsies into a settled working class, as from time immemorial their crimes gave the authorities over much to do. The men were often thieves; they stole horses, chickens, and ducks, plundered lonely homes; even murderers were not unknown. The sensational trial against the cannibal gipsy bandits of Kassa about two years ago shed a lurid light on their culture and morality. Fortunately these cruel elements are a rare exception to-day. The nomad gipsy folk are beginning to die out as they become more and more absorbed by the big cities.

In the days of Franz Josef, the Emperor turned his attention to the problem of the gipsies in Hungary. He wanted to civilize them by special legislation, for which the gipsies did not care and which, therefore, caused much trouble to the country. They preferred the liberty of the road to the prosperity of settlements.

Another interesting experiment to civilize gipsies was undertaken by Archduke Josef, the son of the famous Palatinus, who personally had a special predilection for these people. He studied their language and devoted years of labour and thousands of kronen to make useful citizens of these vagabonds. He founded on one of his estates, in Alcsuth, a gipsy school and built a whole gipsy village with charming houses of stone with a certain amount of comfort.

The gipsies first accepted his offer but could not get accustomed to the civilized form of life. Most of them fled back to the highways, and those who remained lived in subterranean huts constructed by themselves in the courtyard of the very house assigned to them. Archduke Josef had soon to give up his plans for civilization and the famous gipsy village with its gipsy-school has not even existed for years.

One special gift, which almost every gipsy possesses, is their musical talent. Without any knowledge of notes, without having ever been skilled in harmonics, the children can play on the violin any melody at the first hearing. This artistic talent brought to the Hungarian gipsies a world-wide popularity. There are whole "dynasties" of gipsy-primases (the conductor of the band who plays the first violin). The Berkes, Radics, and Racz, to name but a few, have been famous for several generations. King Edward VII, Empress Elizabeth, and the ill-fated Crown Prince Rudolf of Meyerling fame, all had their favourite gipsy-primases and bands. The late Béla Radics, known in Hungary as the "Gipsy King," left a legacy, 400,000 pengö (some £20,000) in his will, to be used for the education and help of gifted gipsy children.

These primases represent the aristocracy among the gipsy folk; their children often marry the daughters of respectable citizens, and have almost nothing to do with the *tsiganes* of the *puszta*, save for the persistence of facial traits. One of them, Jancsi Rigo of world-wide fame, married even a Princess, the late Princess Chimay of Belgium, whose romantic love story has often been told.

F. C. F.

A typical and colourful aspect of "La Jota" may be observed the night before the day of the Patron Saint, when from 10 p.m. the youths of the villages take their guitars and bandores, and go *de ronda*, singing under the windows of the houses where girls live. The girls listen to the songs in the dark, full of joy and hope, for, surely, they will speak to them, in their own words, of love.

They also never fail to devote a "Jota" to the Virgin of "El Pilar," who has been venerated for many centuries in the Temple, built on the banks of the Ebro river.

The dance is a very rapid one, the dancers, in couples, play castanets, and the musician, or somebody else, sings during its course. In the four lines that form the song, there appear the always popular philosophy and humour of the Aragoneses. The dresses are worn only during the feasts, but one can often see, on the roads of some of the smaller villages, beside his ass, a "maño" wearing this costume and humming a "jota."

And, during the hard labours of the land, some peasant will throw to the wind—

"The Virgin of 'El Pilar' is
That which more altars has,
There is no Aragonese
Who in his heart holds not Her."

NATURE NOTES

Two of the finest birds in Africa are fish-eaters and inhabit the shores of the great lakes: the white-breasted fish eagle and the Goliath heron, the first about the size of the golden eagle and the second a truly mighty bird standing nearly 6 ft. high. Near the shores of every lake the great eagle may be seen wheeling and circling some 100 ft. above the water, its high-pitched melancholy cry reminding one of the seagulls circling round the English cliffs. The eagle is ever watchful of the water, and supported by the uprising air currents near the lake shore he waits until some luckless fish breaks surface; then, descending in great swoops, he crashes into the water to grasp the fish with his villainous talons. Sometimes I have seen the waters almost close over his head before he rises in a shower of spray; at other times he swoops neatly over the surface, grasping the fish at the expense merely of a wet foot. The prey most often captured is the carp-like *tilapia* which is held head foremost beneath the eagle, appearing in flight like the stream-lined undercarriage of an airship. The eagle immediately sails off to his favourite perch on the highest branch of a nearby tree, or perhaps shares his capture with his mate or young ones.

The Goliath heron's method is quite different—he stands in the shallow water in some swampy nook patiently with head drawn back. One lightning dab and some unsuspecting fish is pierced from side to side by the 8 inches of his spear-like beak.

As one might expect, these two monarchs among birds, the eagle and the heron, do not live on amiable terms; like most other birds, they are jealous of their own particular territory and a battle royal between the two is an unforgettable sight. Once, on a little island in Lake Victoria, a great heron was quietly fishing in a backwater and by chance secured a particularly luscious prey. An eagle inhabiting a nearby stretch of shore was circling overhead at the time and, filled with envy, was roused to anger and so with tormenting cries dived through the air to drive the heron away. The great heron, however, confident of its defence, doubled his head back between the wings, beak pointed up, so that by thrusting upward he could cover a good 2 ft. above his back. The eagle swooped time and time again, darting at the heron's back but always keeping just 2 ft. above. The battle continued for quite a time until the eagle, persuaded of the futility of his efforts, rose and sailed away.

One of the pictures on this page shows a clever study of dew upon a pansy; we would remind our readers of the recent discussion as to whether dew rises or falls. In a recent correspondence in *Nature* Messrs. E. E. Free and Travis Hoke said that dew rises, Sir Herbert Maxwell that it falls; Dr. J. B. Cohen said that it does both; and Mr. G. C. Simpson, in an interesting letter, says that it does neither. "The physics of dew formation are really very simple," he continues, "although much has been written on the subject and there is still much misapprehension. On a clear night all bodies radiate more heat than they receive by radiation and so does the air near the ground. There is therefore a general fall of temperature. If the temperature of the air falls below its dew point, mist or fog appears. The fall of temperature of the air, however, is frequently not sufficient for the air itself to reach the dew point; but the temperature of grass and other bodies not in good thermal contact with the ground, falling more rapidly than that of the air, goes well below the dew point. Water then condenses out of the surrounding air directly on to the cold body and dew appears on its surface. The dew is nowhere until it appears on the surface; it therefore neither rises nor falls.

"Both Sir Herbert Maxwell and Dr. Cohen speak of the water vapour first condensing in the air before appearing as dew. But if the water condenses in the air there is a mist or fog, and water deposited from mist or fog is not real dew.

"The essential of dew formation is that the temperature of solid bodies falls by radiation below the dew point, and in consequence water is deposited by direct condensation from the air on to the surface of those bodies."

WILL BE A SIX-FOOTER ONE DAY: One of the finest birds of Africa, the Goliath heron stands when fully grown 6 ft. high. This little baby is wondering how he can ever achieve such a height. The nest was on an island in Lake Baringo

A MIGHTY FISHERMAN: The white-breasted fish eagle watching the water of an African lake

THE FORMATION OF DEW: Does it rise or fall is discussed here. This study of dew on a pansy is by Mr. A. E. Smith

THE FISHERMAN'S CHILDREN: These little ones occupy the big nest built by a pair of white-breasted fish eagles of the African lakes

CUCKOO: "I want something more to eat."

REED WARBLER: "Here you are then."

CUCKOO: "Where is that lazy young scamp?"

These three studies of the always amazing œconomy of the cuckoo's youthful career. In this case the foster parent was a reed warbler residing at Burton-on-Trent. A cuckoo had laid an egg in its nest with the above result. Mr. P. Read writes that it took him five hours to obtain this excellent little series

NOT A SOUND either of speech or music is broadcast from the B.B.C. Headquarters in Broadcasting House. The steel masts rising from the roof of the building have nothing to do with transmission in the ordinary way, this is done through land lines to Brookman's Park. Above is a view of the new concert room at Broadcasting House, architected by Lieut.-Colonel G. Val Myer

DUMB-BELLS T

("Middle C" takes the Form of a Dumb-bell)

It may come as a surprise to many readers to know that with the possible exception of experimental transmissions on the ultra-short wave-lengths no actual broadcasting is done from Broadcasting House. To put what actually happens into a nutshell, we may say that sounds made in the studios in Langham Place are telephoned to the transmitting station at Brookman's Park, where they are changed from wired to wireless impulses, and broadcast far and wide from the aerials of the London Regional and the London National stations.

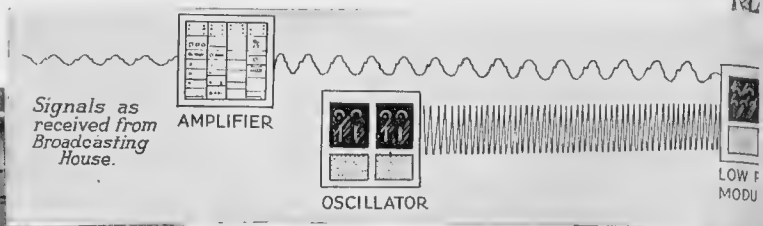
In the present article I am going to trace, avoiding all possible technicalities, the wonderful story of a "middle C" from the time when it is produced in the studio to that when it leaves the aerial at Brookman's Park. Though there is a good deal to tell, it all happens in reality in about one ten-thousandth of a second. All sounds are caused by vibration. To make the "middle C" the vocal chords of a singer (or the string, or the pipe, or the horn, or the sounding board of a musical instrument) must vibrate approximately 256 times a second. These vibrations set up in the surrounding air waves which surge up and down at the same frequency.

Sound waves actually have very complex forms since there is no such thing as a pure musical note; every one is really a chord. In the drawing for clarity's sake, our "middle C" is shown as producing a wave of simple and regular shape.

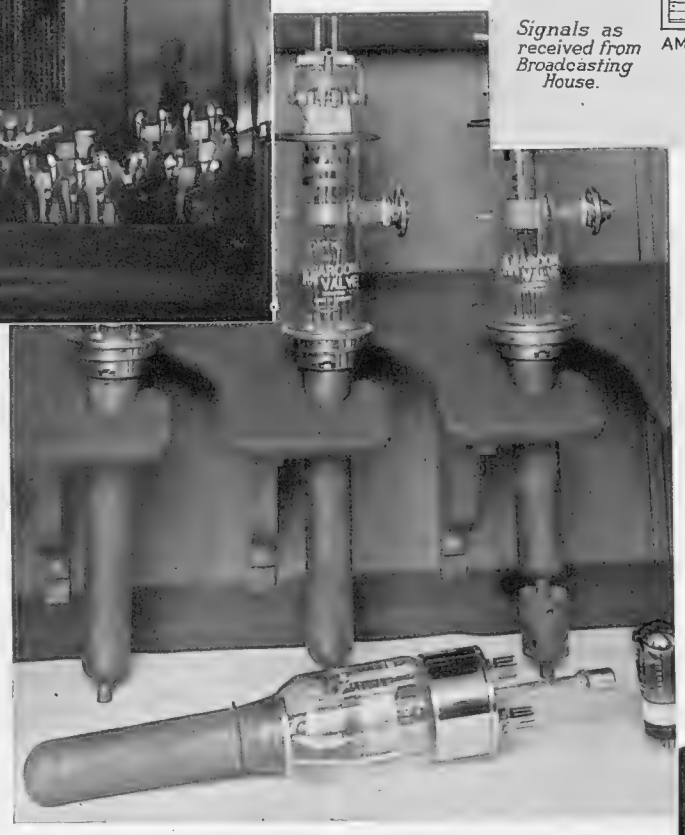
The air wave set up by the vocal chords of a singer in the studio travels to the diaphragm of the microphone which is set vibrating at exactly the same frequency. The "crest" and "trough" of each wave produce a corresponding increase or decrease in the electric current flowing through the microphone. The result is that in the wires connected to the microphone we have electrical impulses which are faithful though minute copies of the original sound-wave.

From the microphone these pass to an amplifier whose name explains its purpose. The next stage of their journey takes them through the control panel, where the engineer in charge is able to regulate the general level of the impulses and to see that they are never overpowering or unduly weak.

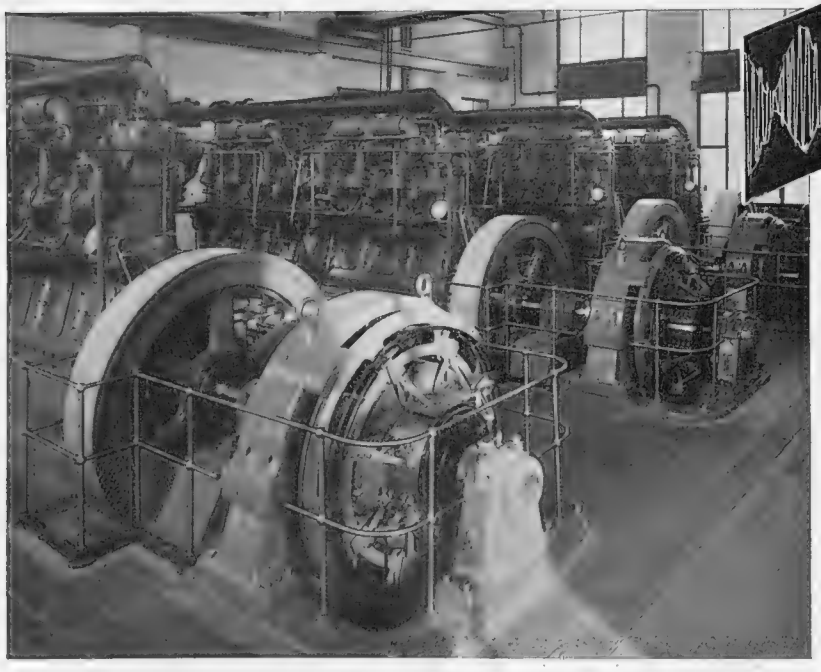
This concludes the part played by the apparatus at Broadcasting House. The next stage of the journey of the electrical copies of the waves resulting from the "middle C" sounded in the studio is over telephone lines. But they are by no means ordinary telephone lines. Possibly it may have occurred to you when you have been particularly pleased with the reproduction of your gramophone or wireless loud speaker to ring up a friend on the telephone, to place your instrument near the horn or the loudspeaker and to await his appreciation of the beautiful quality. If you have done so you have no doubt been shocked on learning (provided that he was a candid friend) that he had never heard anything so awful in his life. The reason is that the ordinary telephone line is designed to make speech as intelligible as possible, and for no other purpose. Speech is actually most clear if the greater part of the bass sounds are cut out; nor is there any need to reproduce very high-pitched sounds. Post Office telephone lines are therefore designed to deal with a comparatively small range of sounds.



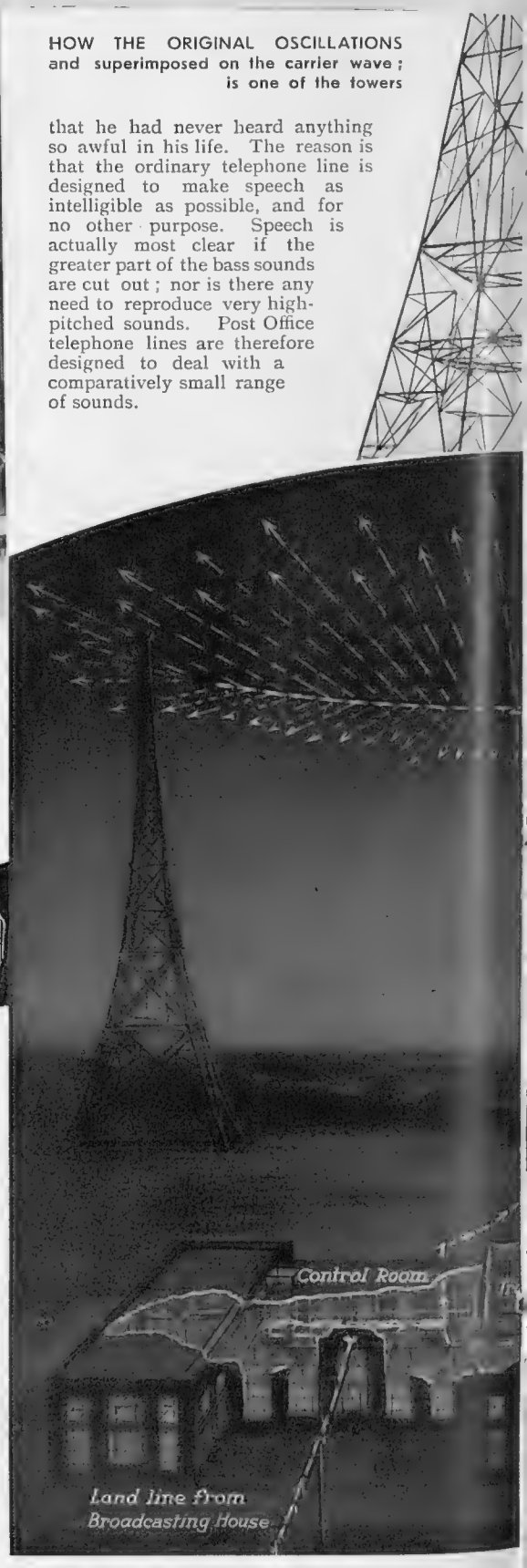
HOW THE ORIGINAL OSCILLATIONS and superimposed on the carrier wave; is one of the towers



THE BIG MARCONI VALVES at Brookman's Park which perform such an important part in conveying "middle C" to the outer æther



AN ENORMOUS AMOUNT OF ELECTRICAL ENERGY has to be produced at Brookman's Park for the propagating of the carrier wave and the oscillations through the æther



WHERE BROADCASTING IS ACTUALLY DONE—not at electricity has surged up the wire leading to the the surrounding æther in explosive fashion. This is actually the "middle C" note described

THROUGH THE SKY

An Up-to-date Account of How a Concert is Transmitted from Broadcasting House to Brookman's Park and so All over the World

By R. W. HALLOWS

But this would never do for broadcasting purposes. When a vocalist, an instrumental soloist, a quartet, a military band, or a full concert orchestra is performing in the studio the sounds produced cover an enormous range of frequencies, and unless faithful electrical copies of the studio sound waves can be sent over the telephone lines the transmissions from the broadcasting station at the other end of it must be woefully lacking in both treble and bass.

A network of special Post Office lines is reserved for the B.B.C. By means of these all of the big studio centres are inter-connected with the transmitting stations. It thus becomes possible for simultaneous broadcasts to take place from any one of the B.B.C. stations. This network consists almost entirely of buried cables, each of which is carefully loaded and balanced so that it is capable of dealing with electrical impulses covering as much as is necessary of the whole range of musical frequencies.

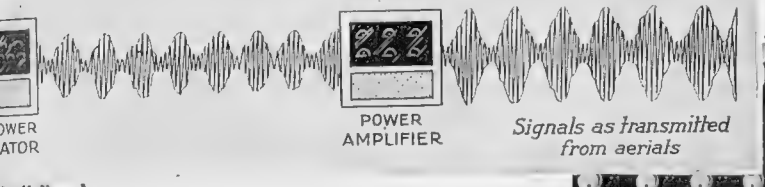
Between Broadcasting House and Brookman's Park there is one of these balanced cable lines. As the distance is comparatively short no amplification of the impulses is necessary during their journey, but when the London programme is being broadcast from distant stations repeaters are used at about every forty miles.

Owing to their journey over the cable, impulses from London are somewhat diminished in intensity by the time that they reach Brookman's Park. They are passed on arrival through an amplifier. And now the time has come to mount them, so to speak, upon the backs of wireless waves which will carry them hundreds and possibly thousands of miles through the æther.

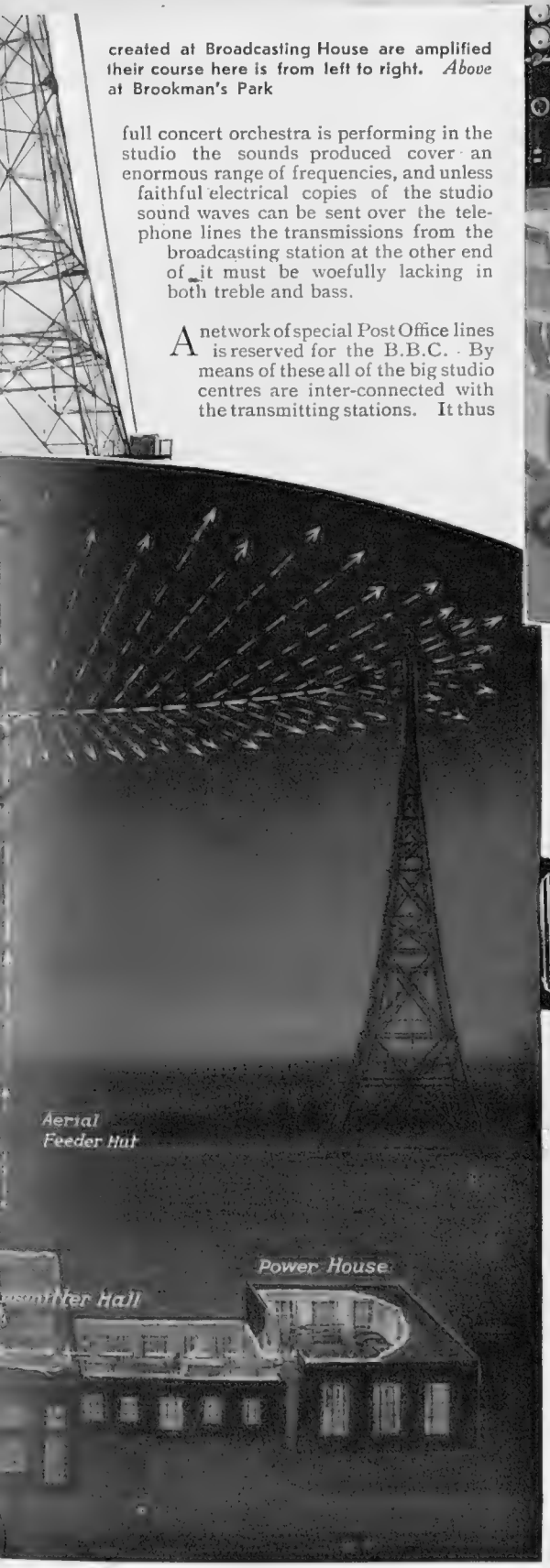
At the transmitter of the London National station is an oscillator which produces perfectly regular waves surging up and down at the almost unimaginable frequency of 1,147,000 a second. These oscillations provide what is known as the carrier wave with a wave-length of 261.6 metres. Unless the electrical copies of the sound waves are "married" to it, the carrier produces no audible sound when delivered to the aerial and broadcast by it. It would be truer to say that it *would* produce no audible sound if it *could* reach the aerial in absolutely pure form. Actually, it is impossible to ensure its doing so. When you tune in the London National station during a programme interval, you are conscious of a slight swishing sound from the loudspeaker. This is caused by the carrier wave alone.

Presently the announcer's voice is heard: the sound waves made by his vocal chords have been super-imposed upon the carrier wave. This process is shown graphically in the illustration. The electrical copies of the studio sound waves and the carrier wave from the oscillator are "married" in the low-power modulating stage. The carrier is no longer a series of waves rising at their crests to the same height and falling at their troughs to the same depth. Instead, thousands of crests and thousands of troughs trace out the outline of the original "middle C" sound wave.

On leaving the modulator the power is still small, quite insufficient to enable the modulated carrier to serve more than a very small area if it were fed to the aerial without undergoing a further process. It passes to the power amplifier, in which the original tiny sound wave, or rather the high-frequency wave train carrying its shape, is amplified into something of formidable dimensions. *(Continued on p. 288)*

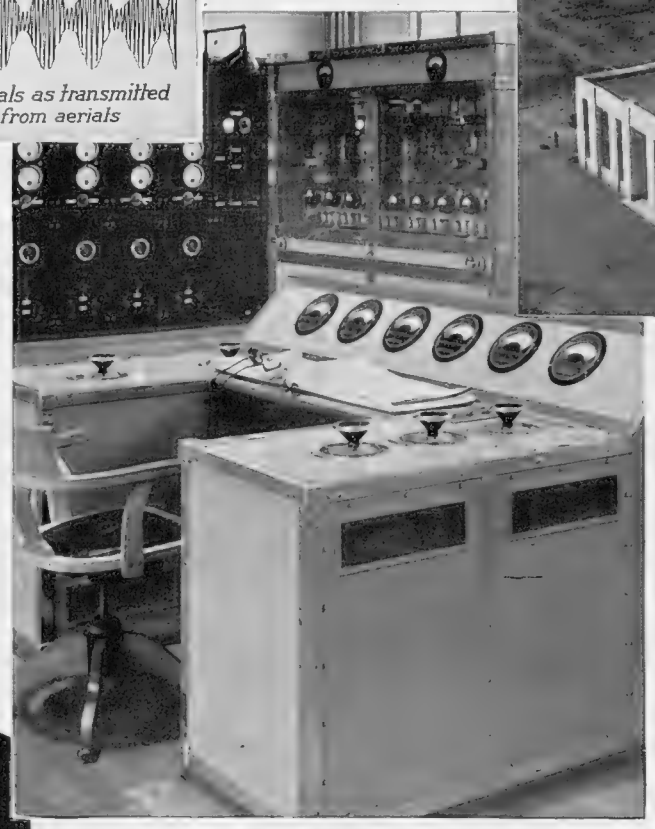


created at Broadcasting House are amplified their course here is from left to right. *Above* at Brookman's Park



Drawn by D. Macpherson

Broadcasting House, but at Brookman's Park. An impulse of horizontal aerial. Arrived there, it has banged itself off into conveyed by the artist as an array of arrow-headed darts; here takes the form of a dumb-bell



THE TRANSMITTER CONTROL TABLE AT BROOKMAN'S PARK is a beautifully compact piece of control mechanism, with indicator needles, and glowing lamps all around one

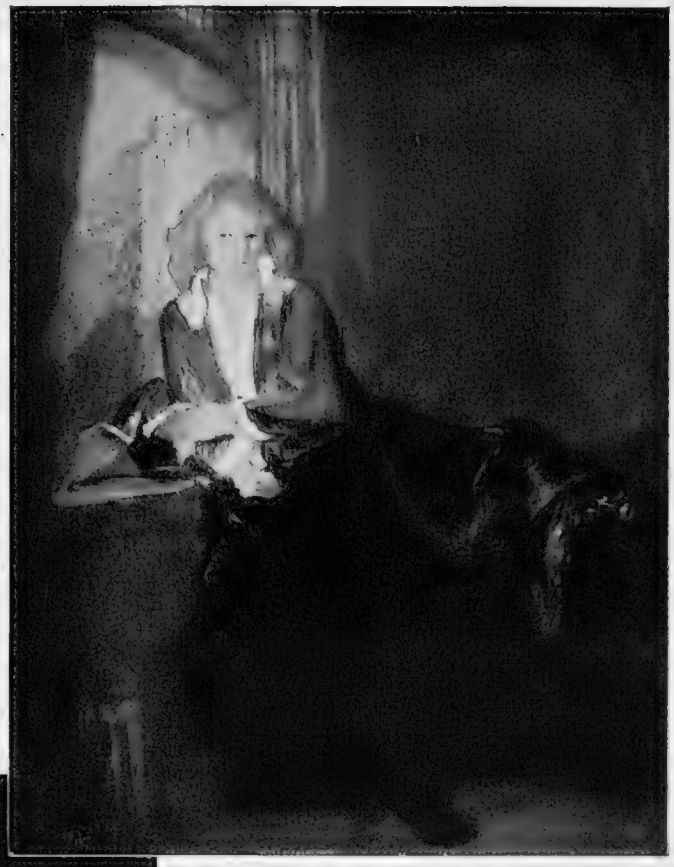
AN OVERHEAD VIEW OF BROOKMAN'S PARK from which the "middle C" is flung out into the æther

IN THE VAULTS BELOW AT BROOKMAN'S PARK are water cooling tanks for keeping down the temperature of the valves. Here also are passage-ways for electrical mains

AN ART MUSEUM of Rare INTEREST

And Other Art Matters

FRANCESCA AND PAOLO BY INGRES: A fascinating though mannered rendering of the famous story—in the Musée Bonnat



BURGOMASTER SIX BY REMBRANDT: A masterly example of the Dutch master at Bayonne

HEAD OF A BATHER: A detail of a tender composition by Ingres

DONOR OF THE MUSÉE BY DEGAS: A clever portrait of Léon Bonnat at Bayonne

The finest collection of pictures outside Paris is to be found in the picturesque town of Bayonne in the Basque country. Its presence is an added charm to this S.W. corner of France. Léon Bonnat was a native of Bayonne and, a successful portraitist himself, collected the works of his contemporaries and also of the great masters. A visit to Bayonne is an æsthetic treat

THE DUKE BENEVENTO BY EL GRECO: Another of the striking portraitures at the Musée Bonnat, Bayonne

CHILDREN OF THE ONCE-OWNER OF VAUXHALL GARDENS (?)—A PORTRAIT GROUP BY FRANCIS HAYMAN, R.A. This picture has come down through successive owners to Mrs. Derek Fitzgerald, who has lent it to the present Exeter Exhibition. The children were probably the son and daughters of Jonathan Tyers

THE VIRTUES OF SIMPLICITY IN ART—A RESTRAINED COMPOSITION BY TOMA: This study of Luigia Sanfelice in the condemned cell at Naples is a beautiful example of the virtues of simplicity in art. This canvas by Toma has been on exhibition recently in Rome. It shows Luigia making clothes for her expected child—the law cannot condemn the unborn

THE SPHERE SURVEYS THE WORLD

IN MEMORIAM: President Albert Lebrun of France speaking at the inauguration ceremony of a monument to the 400,000 French soldiers who lost their lives in the ten months' battle at Verdun during the War

A TOUR OF INSPECTION: During his recent visit to Brittany, M. Herriot, the French Premier, availed himself of the opportunity of visiting the famous prehistoric megalithic structures at Carnac. He is seen above with the Mayor of Carnac, who is wearing the picturesque national costume, which contrasts strangely with the modern attire of the President

THE TOMB OF THE "GREAT ASSASSIN": The last resting place of Abdul Hamid, who became Sultan of Turkey in 1876. The Armenian massacres of 1896 won for him the title of the "Great Assassin"

MEDIEVALISM ON THE FRENCH RIVIERA: A plague procession re-enacted to commemorate the miracle of Sainte-Marie-des-Neiges, a saint to whose intervention was attributed the survival of the plague-stricken villages along the Côte d'Azur in 1467. This ceremony strikes a quaint old-world note in the now highly modern French Riviera

DEDICATED TO A GLIDING PIONEER: A view of the imposing monument, built on a hill, dedicated this month in Berlin to Otto Lilienthal, the famous gliding expert

AN OLD SPANISH CUSTOM! A great feature of the "summer festivals," which were recently held in Madrid, was the parade of betrothed couples in national costumes, who formed a procession through the streets of the city

RUBBER-NECKING ROUND

The Bank of England came into view, and we were told that it was the weather which produced the black and white effect

The editor had said, "What about a bit of inspired reporting?" And nothing had seemed easier in prospect. I would have 15s. of rubber-necking round London with a charabanc load of American tourists. I would describe their reactions to the scenes that were pointed out to them. I would, so I thought, report in the most inspired fashion the wittier comments of the guide. I would dramatize their personalities and ejaculations. I would . . .

But let us start in a side street near Piccadilly. It is a fine morning, and a half-a-dozen postcard sellers, newspaper boys, and others push their wares under our noses. I have taken seat No. 16, so as to be in the centre of the party, for there are thirty-two of us. On my right was a school teacher from Milwaukee. Behind me were her mother and sister. Immediately in front of me were two women from Denver. Half-right was the prettiest girl in the party, who came from Long Island, and soon shouldered off the youth from Ohio who sat next to her, though chumming up in St. Paul's Cathedral with the brother and sister from Westchester County. Elsewhere in the coach were four college girls from Columbia, one of whom wore an identity disc on her left ankle, wrote shorthand notes of what the guide said, and carried a movie camera; and two horn-spectacled elderly brothers, one of whom was a deaf dentist who had married late, lost his wife, and was now trying to forget. Their name was Curtis. I soon picked up this bit of gossip from Miss Milwaukee, because she and her mother and sister had sat in the same motor-coach in Rome, Naples, and Heidelberg, and they had been told the story in Rome. There was also a woman in a red hat who came from Boston and had been to the Tower of London before, and a rather prosperous party of four who discussed contract bridge all the time. Such was the material on which the guide had to work—a nice little man in a grey suit who did his job thoroughly efficiently—but of that later.

As we took our seats, old Mrs. Milwaukee said, "Say, this is just like my old rocking-chair." To which her daughter replied, "Wouldn't ya like the Prince of Wales, ma?" pointing to a photograph of the Heir to the Throne held up for her inspection by a street vendor. Another tourist, who wore a straw hat, bought a *New York Herald* for sixpence while his wife said contentedly, "Yeah, she divorced him after twenty-four years." The brothers Curtis chewed gum quietly and contentedly, like nice grey cows. And then we started. Much of what follows was either entirely new to me, and almost entirely forgotten if I had ever known it—largely, I suppose, because I am a Londoner, and have never bothered to inspect the capital for its own sake — but was it interesting to the Americans?

As we turned into Pall Mall East the guide pointed out a statue. "That is your old friend, George III. I thought you'd like to look at him." But nobody did. "And there," he went on, "is the National Gallery. That space is Trafalgar Square, and this statue is George Washington." Northumberland Avenue lay before us. "The Duke of Northumberland lived in this little street. Now hotels have taken his place. Here is the Thames. The Embankment was built eighty years ago. Over there is Waterloo Bridge. It is sinking in the middle. It will have to come down, I think." We stopped at Cleopatra's Needle. The guide gave it its name, and then explained that it had nothing to do with Cleopatra, that it had been erected first in 3500 B.C., then in 2500 B.C., and then went down in the ship which was bringing it to England across the Bay of Biscay. A vague interest spread over the faces of the rubber-neckers, though the party at the back were at it. This gave the clue to both trips, morning and afternoon, that I made with these sightseers. As you will see, it would be difficult to work out a more unimaginative tour of London than this one, though scheduled by a leading tourist agency. And I think I have put my finger exactly on the spot which indicates the reason why Americans prefer Paris and France to London and England. London is treated almost entirely as an historic city full of statues. Its gaiety, full-bloodedness, modernity, and hospitality are lost in a sea of dreary detail. It is not the fault of the guide that he has to follow this formula of sight-seeing. It is the fault of the tradition. But even the formula is dreary beyond belief.

Once more we started off, and my theory about what interests Americans was borne out by the craning of necks when the Shell-Mex offices and the Savoy Hotel were pointed out. Then we drove past the Temple without stopping, and an historical digression on the Knights Templars ensued, together with the information that it was in the Temple Gardens that the red rose which started the Wars of the Roses was picked. Blackfriars Bridge was pointed out, and we were treated to the statement that London has a long religious history, and a reference to Paternoster Row, down which the priests walked, completing the Lord's Prayer at Amen Corner. I liked that bit!

The offices of *The Times* in Queen Victoria Street were pointed out as being those of the biggest newspaper in England (shades of *The Daily Mail* and *The News of the World*), and then in rapid succession we were shown the Church of St. Matthew in the Wardrobe, the headquarters of the Salvation Army, the College of Heralds, and then London Stone — the stone under the grating by St. Swithin's Church from which they measure all distances out of London. I liked that bit too. A statue of William IV, and the Monument, elicited little interest, but a charabanc going in the opposite direction full of laundry hands bound for Southend, with the beer parked on the

We started off, thirty-two of us, in a charabanc from a side street near Piccadilly

On my right was a school teacher from Milwaukee. Behind me were her mother and sister. Immediately in front of us were two women from Denver. Half-right was the prettiest girl of the party, who came from Long Island. Elsewhere in the coach were four college girls from Columbia

discussing the importance of a hundred honours when you are not vulnerable. The young man from Ohio had already told the girl from Long Island where he came from. Miss Milwaukee had opened up a conversation with me which proved rather desultory, because she could hardly understand a word I said. After a time I wrote words down in my notebook, as if I were dumb, for her to read. What made it still more humiliating for my pronunciation was that Mrs. Milwaukee said she thought I was a Canadian, while her daughter always prefaced any comment of mine which she passed on to her mother by remarking, "This young man says . . ." But do not let me appear churlish. They were charming people, and though they had rushed all over the Continent, from Belgium to Italy and Switzerland, and back by Germany, they could still remember pretty well what they had seen. True, they told me that they had stayed opposite the casino at Heidelberg, which puzzled me slightly. That old university town would have gone very gay to have started gambling at this stage in its career. Probably they meant Monte Carlo.

But we are still at Cleopatra's Needle with that vague boredom on the faces of the gallant thirty-two, when the guide pointed out that scar left by the Zeppelin bomb. At once everybody jumped up and looked

LONDON: How Thirty-one Americans Saw London from a Charabanc on a Fine August Day

Described by CHARLES GRAVES

At 2.30 we assembled for tour No. 2. We had done the City; in the afternoon it was the turn of the West End, with the Parks and Buckingham Palace (the outside) with no view of the King

The London Stone in Cannon Street was duly pointed out to the thirty-two

roof and all the occupants in paper caps, caused wild interest. Here was real life. As we were held up in the traffic, numbers of City workers went by. "Say, I suppose you can get quite used to walking with an umbrella?" observed Mrs. Milwaukee. "It's much like carrying a cane, I suppose." "No," said her daughter. "I guess it would be a real nuisance. I'd never get in step with it." There again was something human and different about the Londoner that might have had some comment, human or otherwise.

Silence fell on the charabanc as we drove along Tooley Street, broken by a series of interested "Ohs" when the deaf dentist pointed out the offices of the London agents for Swift and Co, the American packers. Soon we passed Mincing Lane, St. Margaret Pattens, and All Hallows Barking, in which the Americans were only faintly interested despite being told that William Penn was baptized there and John Quincey Adams married there. And so we came to the Tower. The first three beefeaters said they would not be photographed. The sentry, being on duty, could not refuse. Cameras clicked. Here was something alive. Bell Tower was pointed out as the scene of Queen Elizabeth's incarceration. The Bloody Tower and Traitors' Gate followed suit. Then we came to the Crown jewels. Naturally, everyone was interested in them, and I, in particular, to hear that whereas King Edward's crown weighed five pounds, that of King George weighs only nineteen ounces. The origin of the Knights of the Garter, though historical, was human, and so was the sight of the execution block with its wide, shallow space for the shoulders of male victims on one side, and the narrow one for those of the women on the other. The fact that Lord Lovat was the last man to be beheaded in this country; the model of the rack which could add nine agonized inches to the stature of a man; the gibbet in which the corpses of malefactors might swing at the cross roads for twenty years after their death; and the thumbscrews, all created an agreeable shudder.

By this time, though my flesh was willing, my spirit was weak, and so I left the party to spend another half-hour gazing at relics of the past, while I watched the ravens which are "on the strength" of whatever regiment is billeted at the Tower and receive their regular rations like any soldier.

Five minutes were then allowed the party for refreshments, and Miss Long Island accepted a glass of cider. "You know," she said confidentially, "I've had enough of these dead places and things. I'm dizzy with them already. I'd like something more human." But alas! it was time to go on again. Soon the Bank of England came into view, and we were told that it is the London weather which keeps it white on the top and grimy on the sides. Up Cheapside we went, past Bow Church, which I had never recognized as such before, and so to St. Paul's which, we were told, took thirty-five years to build. No time to feed the pigeons. We went in, and had an interesting though somewhat partisan lecture on Nelson in the crypt, which was made the theme for a suitable reference to the general depression and the fact that England always recovers from her wars. We also saw the tombstones of Turner, Reynolds, Gainsborough, and Sir Christopher Wren. "I've not walked as far as this for years," said Miss Long Island. We then entered the charabanc and drove up Fleet Street. The Cheshire Cheese and the *Daily Express* offices were duly pointed out and given their right names. But I was a little hurt when the imposing offices of THE SPHERE and the rest of the "Big Eight" were dismissed as "Lloyd's Bank." Our way then led past the Old Curiosity Shop, which created great interest, though we were not allowed to stop, and so by way of Lincoln's Inn Fields, where they used to have duels and now have lawn tennis courts, Holborn, and Leicester Square back to our starting point.

So much for tour No. 1. At 2.30 p.m. we assembled for tour No. 2. The young man from Ohio had retired discomfited. Miss Long Island had changed into a pink coat and skirt. The deaf dentist had his acoustic gadget farther up his chest so as to hear better—which reminded Miss Milwaukee that in Italy it had caused the greatest trouble with the police, who thought it was a kind of illegal camera. The tourist in the straw hat was accompanied by another woman, and the guide told me that someone had asked him where it was possible to see Gray's Elegy.

Again we started off by way of Trafalgar Square and into the Park by way of Admiralty Arch. Pointing to the backs of the mansions in Carlton House Terrace, the guide said that two American Ambassadors had lived there, and then designated over the tree tops the houses of the Duke of Marlborough and Lord Lonsdale, St. James's Palace, and Marlborough House. "The Prince of Wales won't live there," he said. "I don't know why—any more than I know why he is a bachelor." He also picked out Clarence House, where the Duke of Connaught lives—a thing I did not know myself—and the London Museum. Opposite the Victoria Memorial, which he said cost £300,000, we stopped facing Buckingham Palace. "Say, I've got to get the Royal Guards," said the American girl with the identity disc round her left ankle. "Will we see the King?" anxiously asked the man in the straw hat—whose first remark this was. "No, he's gone to Balmoral," said the guide, and added, as we came to the arch at Hyde Park Corner, "Only the King and Queen may go through the main gate. If any of you on board are Royalties, I'll take the chance." This was the only instance we had all day of the guide-humour which I had noticed so much last summer in Belgium and Germany.

We then drove the few yards of Piccadilly between us and Park Lane. The houses "napped" were the Duke of Wellington's, Lord Rothschild's, Lord Allendale's, and the Duke and Duchess of York's. "Not very pretentious," the guide observed. Everyone stared with unconcealed interest, particularly Miss Milwaukee who was a bit of a sentimentalist. Entering Park Lane, the guide stigmatised it as the street of millionaires who have no money. The buildings "napped" in Park Lane were Londonderry House, Lord Brassey's house and Sir Philip Sassoon's. We also made a detour of Chesterfield House, and the guide spoke of Lord Clanricarde romantically leaving all his money to Lord Harewood; we could have done with more of that. In Grosvenor Square the only house pointed out was the Duke of Portland's. Lady Cunard did not come in for any mention. Driving down Brook Street we went straight across Bond Street without a pause and into Oxford Street by way of Hanover Square, Regent Street, and Oxford Circus. Lord Derby's town house was pointed out, but Miss Milwaukee was much more interested in Woolworth's; while the deaf dentist ejaculated "Say, look. There's 'Walk-overs.' I guess we'll have to stay here a day or two longer." Passing Marble Arch, the guide explained how the middle gate had been found too narrow for the State coach and so had been transplanted from its intended site at Buckingham Palace. He also told us that the lamp standard was the exact site of the old gallows, and that the smallest house in London, which is a few yards along Bayswater Road, had been bought for a thousand pounds by the man who lived next door. Every camera was trained on it. Here again was something human and unusual. We then entered the park by Lancaster Gate, "Say, it

(*Continued on p.* 286)

EMU H
ARGEN

By M

A FIRST STAGE IN EMU HUNTING:

The gaucho swings his boleadora

A CLOSE-UP IMPRESSION OF THE QUARRY:

An emu in full flight

THE CHASE LITERALLY IN FULL SWING:

Over the wide pampas go pie-bald horses and the fleet-footed emu

THE MEANS OF CAPTURE:

The lead-headed boleadora looped about the fingers

On the pampas, grass steppes whose end one cannot see, the emu lives in herds. He is a close relative of the African ostrich, only smaller. His flesh is just as untasty, his feathers are at present less valuable. The fashionable woman does not deck herself with emu feathers; at present one merely makes dust brooms from them to dust cars and other things with sensitive surfaces, for emu feathers are as soft as silk. So soft are they that it would seem likely that some new and profitable use may be found for them.

To hunt, or rather catch, the emu is difficult. The gauchos, those inimitably clever riders and lasso-throwers, go in groups of fours and fives on horseback to hunt them, before or after working on the land, or after rain when the earth is too soft to work on.

It is a real strategical manœuvre to catch the emu. First of all they approach the birds in a line. A little later the two wings of the riders go slightly ahead so that the emus in full flight cannot break sideways. The long-legged giant birds when in full flight need a good horse and a good rider to keep up with them. The gauchos swing over their heads a three-tailed lead-weighted boleadora; the chase goes into gallop and the exciting hunt nears its end. The emus go over the steppe like the wind and hard on their heels the riders. The gaucho swings the boleadora over his head and spurs his horse. He is now ten or twelve yards nearer the emu on which he has his eye. He casts with amazing rapidity the boleadora, aiming at the legs of the bird. In a second it has wound itself round the racing creature and caught it as if in a trap. The emu crashes to the earth. After a while it rises heavily, but can no longer run. The gauchos spring down from their horses, catch hold of the emu, and tear the fully-grown feathers from his back, then allowing the terrifying creature to go. After this feather-robbing, the line forms anew and the hunt begins afresh.

It is exciting to hunt the emu, and difficult, but not nearly so difficult as to photograph it!

HUNTING in the NTINE PAMPAS

y MARTIN MUNKCACSI

AFTER THE CHASE:

An impression of emu feathers, with the boleadora neatly coiled up

CAUGHT AFTER A LENGTHY RUN:

The emu's legs are entangled with the boleadora's rope and balls

A LAST STRUGGLE FOR FREEDOM:

The emu rises from the ground but cannot free itself

THE CHASE ACHIEVES ITS OBJECT:

The feathers are torn from the back of the emu which is then released

BECALMED ON THE BROADS: Two nymphs await the coming breeze

ON SUNLIT WATERS

GATHERING LILIES WHILE ONE MAY:

A study at Lingfield
These Surrey lilies are converted into aids to beauty by some subtle chemistry

WHERE NO BOUNDARIES EXIST:

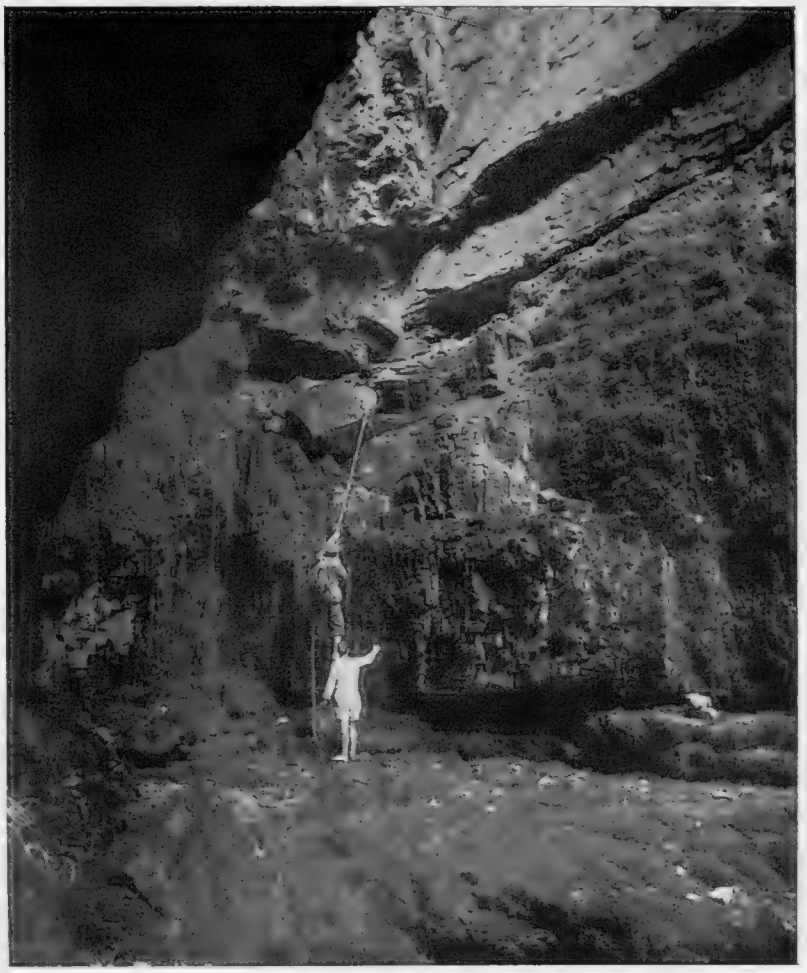
A hefty swipe with the bat carried the ball heaven knows where

AN EARLY MORNING CALLER:

A study on Wroxham Broad
This canine visitor is calling for a little early breakfast

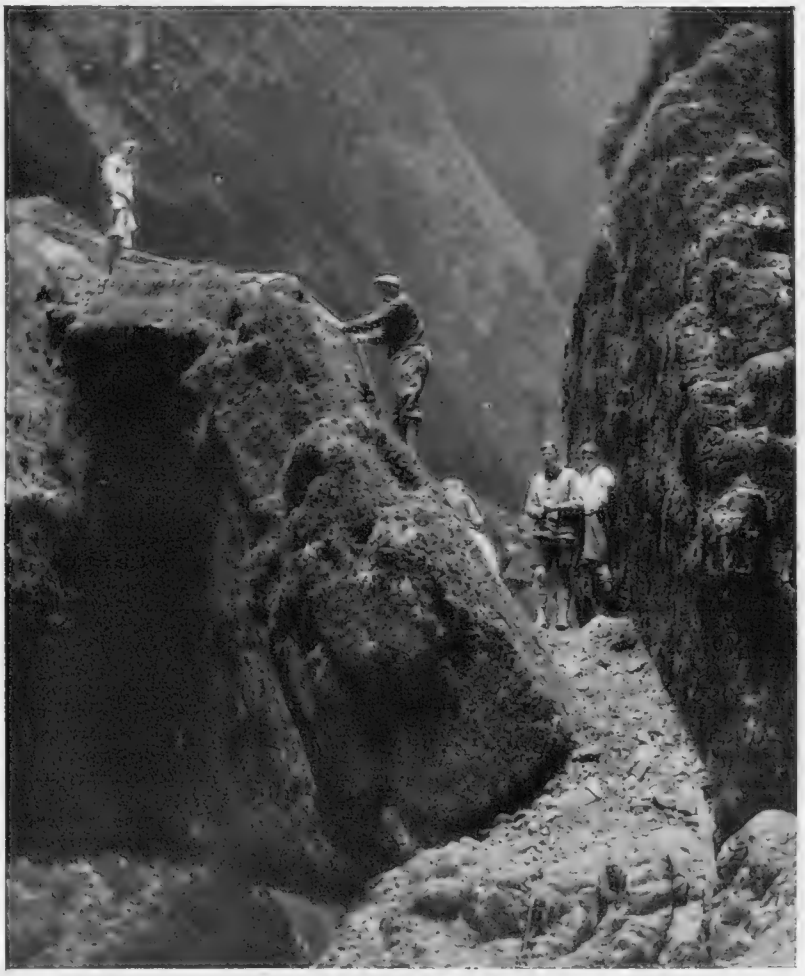
DOWN A YORKSHIRE POT-HOLE

CLIMBING DOWN THE GREAT FIFTY-FOOT FISSURE which leads into the cave near the great chasm. A rope ladder is employed, and a supply of life-lines and plenty of illumination are essentials of a "pot-holer's" equipment. This picture and the others given here were obtained when the light was particularly favourable



THE ROUTE TO THE BALCONY IN ALUM POT: After descending an underground cave, a series of drops have to be negotiated before arriving at the head of the great fissure, fifty feet in depth. The above view shows the pitch leading down to the lower balcony. A knotted rope is being employed

DOWN IN THE DEPTHS OF ALUM POT: To reach the lower level a twenty-foot downward climb with a knotted rope has to be made followed by a fifteen-foot slide down the bridged rock shown in the middle of this picture



A LOWER STAGE STILL: The party is standing on the narrow ledge from which the seventy-foot ladder pitch starts leading to the bottom of Alum Pot

Alum Pot descends vertically to a depth of nearly 300 ft, and is one of the finest of the great rifts peculiar to this fascinating and hilly corner of Craven in the Pennine country of North-west Yorkshire. Its exact situation is on the eastern flank of Simons Fell on Ingleborough and about 4 miles from the village of Horton-in-Ribblesdale. Descents of this pot-hole have been made on various occasions by different cave and pot-holing clubs. Pot-holing and cave-hunting are sports of absorbing interest in more senses than one—as water in the shape of pools, rapids, and falls is nearly always a very important factor to deal with and extensive exploration is only feasible under moderately dry conditions.

BOOKS:

Lyautey, the Aristocrat in Action: Peter Quennell on the Magic Circle of of Japanese Life: The Latest Saga of the Monumental Walpole

By CECIL ROBERTS

I remember sitting outside a café in the Avenue Jules Thierry at Tunis when a grand cavalcade rode by, dressed in the voluminous trousers and scarlet fezes with which France garbs her North African troops. The commotion, I learned, was in preparation for the arrival at the French Residency of Marshal Lyautey, on a visit from Morocco. Half-an-hour later I had a glimpse of this great French general and administrator. He interested me not only because of his amazing transformation of Morocco into a French colony, the most successful instance of French colonization on a policy of native *laissez-faire*, but also because of the personal tradition of the man, for in everything he had shown himself at once an autocrat, an aristocrat, an æsthete, and a man of letters.

Marshal Lyautey is an old man; he can look back upon a remarkable and romantic life. He has always played a lone hand. André Maurois has already paid tribute to his personality. This present book, *Intimate Letters from Tonquin* (Bodley Head. 15s.), reveals an earlier Lyautey. This is a volume of letters he wrote between 1894 and 1896, covering his period at Tonquin, while attached to the French Headquarters there during the occupation of Chinese territory. He was then forty years of age, a Commandant, and realizing the unique nature of his task, he wrote letters to his friends describing his experiences. Good fortune attended him from the first, for his chief fell ill, and for six weeks he became Chief of Staff. He then accompanied a military mission in a two-months' journey along the Chinese frontier, visiting the French outposts, and seeing life in unchanged China. There were operations against brigands, and for a time Lyautey served under Galliéni for whom he had a tremendous admiration. This was the beginning of a life-long devotion.

MARSHAL LYAUTEY has published a book of recollections of Tonquin, which will interest English readers from the angle of Colonial administration

These letters have two interests for the English reader. There is in them much shrewd criticism and explanation of the French colonial administration. Lyautey is constantly looking at the English model—which he sees with all its faults and virtues. He comments upon the class of rulers we sent out, "the admirable English organization, broad, supple, full of continuity, managed from top to bottom by gentlemen or by live men who know how to behave as such . . . swift in action, correct, careful of their prestige, careful of outward appearances, and who, above all, have unity of principle, method, and aim."

Lyautey was the aristocrat in action. We need not wonder that he had frequent collisions with the Republic. At the foot of one of his letters from China he requests his friend to send him *La Renaissance de la Poésie Anglaise*, the poems of Vigny, and *Fleurs de Mai*. He had not only a bâton but an anthology in his knapsack. His interests in that barbaric outpost were not confined to France or her colonies. "England and America are another matter. What we must learn of them are their habits and methods; to do this we must see these masters of the world at home. They can teach us everything. I would give as a valuable experience, in spite of my love of art, all my wanderings in Algeria, Italy, the Near and Far East, for a season in Chicago, New York, or Oxford."

He did not find his surroundings congenial in those days. There was no social life in the French settlement; "the result is that so long as one has no quarters of one's own, one does not know what to do with oneself in the evening. Unlike the towns of Algeria, Cairo, or the Levant, where the native life is so intense at night, where from the moment the sun goes down arises a murmur of living beings, of pleasure, with so much colour and sound, here at five o'clock, when night falls, the natives vanish, their houses are closed. What happens to them? I have not yet investigated this, but for the walker it is night and death. However, even if they had this external life of the East, the natives are too ugly to look at. The Arab has his warlike beauty, the Indian his priestly beauty; these people are horrible and repugnant, both male and female."

MR. PETER QUENNELL has added another volume to the library of books which attempt to throw light on the mind and soul of Japan

This book would have been better for cutting. Some of the letters deal with trivialities, and in any case can be of no interest to the English reader, but the impression given by the whole is that of an alert, sensitive mind, the mind of an artist vacillating between meditation and action.

It has been the custom for certain of our academic pundits to reward their pet disciples with a Chair of Literature at some remote university of the Far East, or in remote Africa. I wonder, for instance, what Tokio University thinks of the various young men, attitudinizing, patronizing, faintly satirical, and insufferably superior, who have been imposed upon it, chiefly on the strength of having written some bad verse? It does not seem to be the habit of the Japanese to write books upon these visitors. It always seems the habit of these visitors to write books upon the Japanese, deriding their hospitality, and sneering at their eagerness for culture. Mr. Peter Quennell went to Tokio University, he has written a book about his experiences, but happily he has fought against being a superior person, and in his book, *A Superficial Journey* (Faber and Faber. 12s. 6d.), he examines himself more than the Japanese. He is a sensitive artist, with a gift of phrase and a quick eye. This is anything but a travel book, and the title is the falsest thing about it, for his observations appear to be anything but superficial. He has no interest in the sights as such, he almost disregards the advance of Japan, he constantly wonders why he is fascinated, and knows that he will always be baffled. He was "glad to be leaving Tokio and Japan; mournful because a year, however unpleasant, is a year which one can ill afford to lose. Mournful, too, because the company on the platform seemed to reproach me with my precipitate retreat. It is not that I should be regretted for myself; I symbolized another failure to establish contact. I had come. I certainly had not vanquished. I had seen and been seen and gone away. Foreign professors are many and they change often, but as they step inside the magic circle of Japanese life a hundred eyes, hopeful and inquisitive, search them for some method they cannot produce. Immense respect, deep attention, yearning silence—then disenchantment, devastating and profound. The lifted gaze of the students in the class-room drops suddenly towards the inevitable feet of clay."

China, cruel, ignorant, self-satisfied, fascinated and charmed Mr. Quennell more than Japan. He found it oddly sympathetic. "Life here is reduced to its lowest terms; every man attends to his own business, his family, his own comfort, his own pleasure, and takes his pet bird for an airing in the cool of the day. Amid the endless meddling of the modern world, perfect cynicism has much to recommend it." It is a temptation, to quote Mr. Quennell. He has given us a vivid cross-section of life in Tokio and Pekin, and never once can you suspect him of being a tourist.

Mr. Hugh Walpole makes me wilt. His industry is simply terrifying. Once a week he motors from his fastness in Westmorland to London, he appears wherever he could be expected to appear, he gives away prizes to earnest scholars, he gives away advice to literary aspirants, he finds time to tell us each month which is the best book of the month, to advise the American public what it should read, to write prefaces to the first novels of promising authors, and introductions for those who, having promised and performed, are in danger of neglect. These are his known activities, his public movements. There is also a Mr. Walpole who writes novels, not ordinary novels but tremendously and vastly designed outlines of English history, presented in thick volumes of eight-hundred pages each, with an elaborate design of family intrigues, births, marriages, and deaths, that necessitates a genealogical tree a yard long explaining the labyrinth of the Herries family.

MR. HUGH WALPOLE has produced an immense tome entitled *The Fortress* —another of the modern sagas—extending to some 800 pages

The Fortress (Macmillan. 10s. 6d.) is the third volume of the Rogue Herries saga. Mr. Galsworthy and his Forsythes are now made to look an anæmic family. A fourth and final volume "it is hoped will be published in the autumn of 1933." I am certain it will, but I am less certain that it will be the final volume. I do not see how Mr. Walpole can ever stop. He is a cataract of words that, unlike his neighbour, the Falls of Lodore, cannot run dry. Let it not be thought that this is either envy or ingratitude. It is merely amazement at a colossal feat. This is Trollope out-Trolloped. It seems to me Mr. Walpole takes a daily dose of five thousand words before breakfast and, having cleared his system with Herries, sufficient to cover ten and sixpence, tackles the major activities of the day, such as entertaining Americans to lunch or delving in the rock garden. I feel tempted, in the fashion of the times, to give myself some importance by instituting and awarding, with an appropriate oration, a *Femina Vie Obèse* or an *Oak-and-Hawthorn* Prize for the longest and heaviest (avoirdupois) novel of the year. Three consecutive wins entitle the winner to the prize outright, and a year's holiday in the Sahara sans pen and ink.

The Fortress opens with the tremendous Judith Paris, aged forty-seven, in the year 1822. It closes with a grand Herries demonstration of affection for the old lady on her hundredth birthday. In between these years Mr. Walpole continues his contemporary history of the times. The tapestry he weaves is as splendid, as rich in its background, as intricate and absorbing in its characterization, as sane, as mellow as the picture he gave us in *Judith Paris*. There are no high lights, but there is that continuous and easy mastery of his medium which makes Mr. Walpole the easiest and most satisfying writer of the age. He has not bowed the knee to the fashion of obscurity, he does not attempt to shock us into disgust or attention. He takes one by the lapel and detains us with the sheer artistry of the born story-teller.

There are moments in this tranquil, flowing prose when one catches one's breath in delight. The family are gathered for prayers—"a long row of upturned boots met the interested gaze of two robins on the window sill," "during those five years he lived as all small boys do, a kind of under-water life with his own particular anemones, sea-horse, coloured weeds, and stones for his absorbed attention." On page 57 there is the finest passage in English literature on clouds. This is the story of Adam, Uhland, and Elizabeth, rather than of Judith, though she still stands immense, a Skiddaw of a woman in the Westmorland scene.

There are moments when I am conscious that Mr. Walpole is dragging in his local colour and history. The dissertation on labour conditions, for instance, makes a serious break in the narrative, and is too obviously "read up" for the purpose, and the Keswick Fête reads like a programme of events. Then also, the Herries too obviously encounter the great figures of the period, "that amusing young man, whom you enjoyed so greatly at Barnet last year, was there, Mr. Disraeli." The temptation has proved too much for Mr. Walpole. And I would remind the author there is no such county as "Rutlandshire." But this does not detract from a most considerable achievement, nor lessen the force of the personal drama.

The Fortress is the house built by sinister Walter Herries to terrify and overthreaten Jennifer. As its walls rise up her life sinks away. He triumphs only to find he has built a prison. But in the end Judith triumphs. She survives, the most imposing figure of the great family whose offspring have secured wealth, fame, and position. And on the last page the great feud is ended, with Walter bringing her tribute. The saga seems to have closed here, but Mr. Walpole promises us the history of Vanessa Paris and Benjamin and Ellis Herries, which will bring us to our own times. It will be a great achievement if he can avoid an anti-climax in his ambition to encompass two hundred years in the history of an English family.

FILMS OF TO-DAY AND TO-MORROW

TAKING HER FOR A RIDE! Miss Gloria Swanson and her husband, Mr. Michael Farmer, at Cannes, where they are making certain scenes in the film, *Perfect Understanding*

DIRECT FROM HOLLYWOOD: Miss Genevieve Tobin, who has come from the American film city to play a leading part in the United Artists' picture, *Perfect Understanding*

A PROMINENT NEWCOMER: Miss Marta Eggerth, the German star, now in England to make the new Lehar film for the Amalgamated Films Association

THE LEADING PLAYERS of the Paramount film, *The Man from Yesterday*, Mr. Clive Brook and Miss Claudette Colbert. This romantic drama in war-time settings is especially notable for its excellent recording, photography, and general technique

A STAR AT HOME: Mr. Basil Rathbone, the suave and polished Metro-Goldwyn star, on the steps of the beautiful house which he purchased on his arrival in Hollywood

A STUPENDOUS BRITISH EFFORT: A realistic scene of a meeting in the International Chamber of the League of Nations at Geneva in the Gaumont production, *After the Ball*. The recording microphone is suspended from the long swinging arm seen on the left of the picture

AT THE PARTY: Miss Jessie Matthews in a charming pose in one of the scenes in the British Lion-Gainsborough production, *There Goes the Bride*

PLAYS of the HOLIDAY

Mr. Bernard Shaw Gives us a Strange of the Merry Services Series Appears at Latest "Behold We Live"

MISS GERTRUDE LAWRENCE, who is taking the part of Sarah Cazenove in Mr. Van Druten's latest play. *Behold We Live*. It is a mere accident that this attractive actress appears to be considering with the greatest earnestness the amount of charm presented by another beautiful artiste of the stage

Can it be that Mr. Bernard Shaw has been studying the works of Mr. Noel Coward? *Too True to be Good*, to enjoy which I made a slow and stately aerial journey to Malvern, is about as unlike a Coward play as possible. Yet I remember Mr. Coward passing through a phase in which he was obsessed with the quite non-existent "tragedy" of wealthy young people who are swept into a vortex of gay social activity, from which they cannot escape, though they would give what is left of their souls to do so. "Poor Little Rich Girl," I remember, was one of his most successful songs. I do not think there are such people; in these days no one can make a young woman do what she does not want to do, particularly if she has money. If any "little rich girl" is bored with the trivial round and very common task of cocktail parties, she is out of that set like a scalded cat. Even I know young women of impeccable social standing and of wealthy parentage who have become so tired of parties of all kinds that they would as soon think of accompanying Professor Piccard into the stratosphere as of attending another one.

Mr. Shaw now shows us a poor little rich girl—bored with her luxurious home, and a *malade imaginaire*. She escapes, if not like a scalded cat, at any rate with a cat-burglar. This man, the son of an atheist, had been an officer in the Royal Air Force during the War and is now a curate. The girl's night nurse is his mistress. The three see the world—i.e. a desolate Eastern country where there are brigands, fashionable frocks, and a *plage* for bathing—on the proceeds of a stolen pearl necklace. The girl disguises herself as a native and acts as lady's-maid to the night-nurse, who disguises herself as an Italian countess and eventually reveals that she had been, apparently, a prostitute. The girl's mother is hit over the head with an umbrella by the colonel of the regiment suppressing the brigands. Lawrence of Arabia appears. And the atheist-father of the parson-burglar is revealed, like St. John the Baptist in the wilderness, wearing a frock coat.

THE ORIGINATORS OF THE NON-STOP VARIETY: The first house to produce non-stop variety in London was the little Windmill Theatre off Shaftesbury Avenue. Their adventure survived its original difficulties and set the present vogue. This set piece shows how the idea has subsequently spread

It is no use asking "why" about anything here. Mr. Shaw's characters are figures from a nightmare; indeed, to me there has always been that touch of unreality about the whole Shavian world, which is like those strange modern landscapes with uncanny blue shadows and the perspective deliberately wrong. The nightmare is there even in Shaw's homelier, more realistic plays. Here the farce and the jokes—not of a very high order—emphasize the uncanniness. I have sometimes dreamed execrable jokes and woke up thanking whatever powers that be that I had not made them, and praying that I never shall. The plot, the laughter-raising, the strange people of *Too True to be Good*, are very like one of those dreams.

And yet, in some inexplicable way, this is not tedious, though it is hardly good enough, as the sauce Mr. Shaw intends it to be, for those whom he imagines cannot digest—in fact, will not even glance at—his serious fare without condiments. With a characteristic mixture of conceit and modesty, the author over-estimates the worth of his frivolities and under-estimates the entertainment value of his serious message.

He is not likely in future to over-estimate the intelligence of those who can see no merit in either except as a peg for cheap disparagement.

Much of the abuse that has been levelled at Mr. Shaw over this play has come about partly because Shaw-baiting has become rather fashionable in bright young circles, and partly because he has not done what he never set out to do. If his ambition had been to write farces as good as, or better than, those which fill the Strand or Aldwych Theatres, I am open to bet that he could do so. What is more, they would be published with an amusing preface and would be readable. Is *It's a Boy* or *Dirty Work* readable? I doubt it.

But Shaw only plays the fool because he imagines it is expected of him. The real Shaw is at his best in *Too True to Be Good*, which as a play is not great, and not even passable, but as a vehicle for the author's eloquence and stimulating philosophic discussion is amazingly fine. As was said of his own character, Bohun, in *You Never Can Tell*, "you can hear his powerful mind working." If he leads us up a blind alley in the end I do not object; for I would sooner be led up a blind alley by Shaw than led triumphantly by others of our "powerful" thinkers into what they conceive to be the Light.

It is a gospel of negation, of course. It is the gospel of an old man, though not of a tired one. And it is useful, intellectual exercise, and not bad fun to hear Albert Chevalier sing "Wot's the Good of Anyfink? Why, Nuffink!" put into glittering Shavian prose.

Since the War, it is argued, the whole world has sunk into a hopeless abyss. "Dick" Sheppard, who does not resemble Mr. Shaw overmuch, the other day suggested that civilization after all might not be worth saving. In spite of this, a sermon is worth preaching when Shaw is the preacher. And preach he must. "For he himself hath said it. And it's greatly to his credit . . ."

The clergyman-burglar is not the author (who can be relied on to find a way out) but some of him is there as the curtain slowly falls on the words, "I am by nature and destiny a preacher . . . But I have no Bible, no creed; the war has shot both out of my hands. All I know is that I must find the way of life, for myself and all of us, or we shall surely perish . . . Meanwhile, I must preach and preach and preach, no matter how late the hour or how short the day, no matter whether I have nothing to say . . ."

I have said that the speaker here is *not* the author.

It has been pretty widely stated that a play such as this needs only declamation, and not acting. I do not agree. To be able to make a long speech removed from any action of the play, and to make it convincingly when the words are not one's own and one is possibly by nature not an orator at all, demand a very high degree of acting.

MISS PEGGY WOOD appears to be enduring the scrutiny of whether one is more fascinating than the other? Or defence of Miss Peggy Wood that she succeeds in of the

DRAWING CROWDED HOUSES DURING AUGUST: The Harbach provide such excellent entertainment that the wave. The opening scene presents all its original appeal. Francis Lederer) is attempting to extract from the name and address. Her adroit fencing to all his woman selling salads is seated in the

Mr. Cedric Hardwicke has had better parts than that of the clergyman-burglar, but he has not played them better. He had had, too, to switch from knock-about farce, having been in Act I kicked in the stomach by Miss Leonora Corbett. Miss Corbett was delightfully youthful and impetuous as the girl patient and Miss Ellen Pollock's versatility in the matter of accents and her sense of comedy were alike joyous. A fine performance came from Mr. Ralph Richardson as a Bunyan-reading sergeant, and Mr. Scott Sunderland played a stupid British officer with the very reverse of stupidity.

A queer business altogether. But an enormously interesting one.

SEASON:

Medley of OPINION at Malvern: Another the Shaftesbury: and Mr. Van Druten's is Billed at the St. James's

Miss Gertrude Lawrence with equanimity. Who shall say have they a different appeal? One can assuredly say in drawing crowded houses to the Palace Theatre in the height heat wave

music of Jerome Kern and the entertaining book of Otto Palace Theatre has scarcely felt the effects of the heat The moment recorded here is where Victor Florescu (Mr. charming Shirley Sheridan (Miss Peggy Wood) her Christian approaches provides some delightful moments. The old background. The setting is a quayside in Brussels

The Shaftesbury Theatre, now made all glorious within, and uncommonly comfortable too, has established itself as a semi-official chapel-of-ease to Aldershot and Portsmouth. Even its renovation suggests spit and polish and a desire to have things ship-shape.

If he had obeyed family associations, Mr. Basil Foster would, of course, have been playing the officer in khaki in the Shaw play at Malvern, beneath the shadow of that ridge of hills he knows so well. But Mr. Foster has so long been in command of "H.M.S. Shaftesbury" or the Royal Shaftesbury Regiment (as the case may be) that he is even more at home as an equally elegant officer in khaki in Shaftesbury Avenue, the play this time being Major Ian Hay's *Orders are Orders*.

If Mr. Shaw reminds us of the War by dealing with post-War problems, Ian Hay reminds us that the fighting services still exist. In these days when the Navy and Army are being whittled down almost to the point when a soldier or sailor in uniform in the streets of London is likely to become as much an object of curiosity as a Choctaw Indian in his war-paint, this may be regarded as useful propaganda. Indeed, I shall not be surprised to find some of our pacifist cranks, who scent martial danger in the bare knees of a boy scout, regarding the Shaftesbury plays as liable to foster a spirit of militarism. Should this happen (and I have some foundation for my surmise) it will be as good a joke as any in this series of plays, which have been by no means devoid of good jokes.

TOO TRUE TO BE GOOD AT MALVERN: This picture shows the original cast and setting as the play was produced in America. Miss Beatrice Lillie appears on the left

The formula for humour in the Shaftesbury service-farces is simple. Peppery but good-natured officers of high rank must discover junior officers clandestinely entertaining the young ladies of their choice. Gloomily amusing comments on life in general and their immediate superiors in particular are then offered by the lower deck, or by private soldiers as the case may be. The fierce fooling of N.C.O.s acts as a liaison, and is invariably implicated in liaisons of another sort. The result is clean, honest fun—and I have yet to learn why fun is any the worse for being clean and honest, provided facetiousness does not rear its dreadful head. *Orders are Orders* is not the best of the series, but it is not the worst, and facetiousness is mercifully absent. Instead we have the slightest of sentimental love stories as a background to a farcical contrast between Army Regulations and Hollywood irregularities. The contrast has been intentionally exaggerated, for Ian Hay and collaborator know as well as I do that American film producers, though not the most learned or most blameless of men, are not blithering and graft-ridden idiots; and he knows better than I do that a commanding officer in an English garrison town could never be the amiable nincompoop portrayed so cleverly by Mr. Clive Currie.

One day, perhaps, the meeting between Hollywood as it is and the British Army as it is will form the basis of a true comedy. Meanwhile, with the necessary contortion, the farcical material is so good that I am surprised the joke has not been worked out rather better.

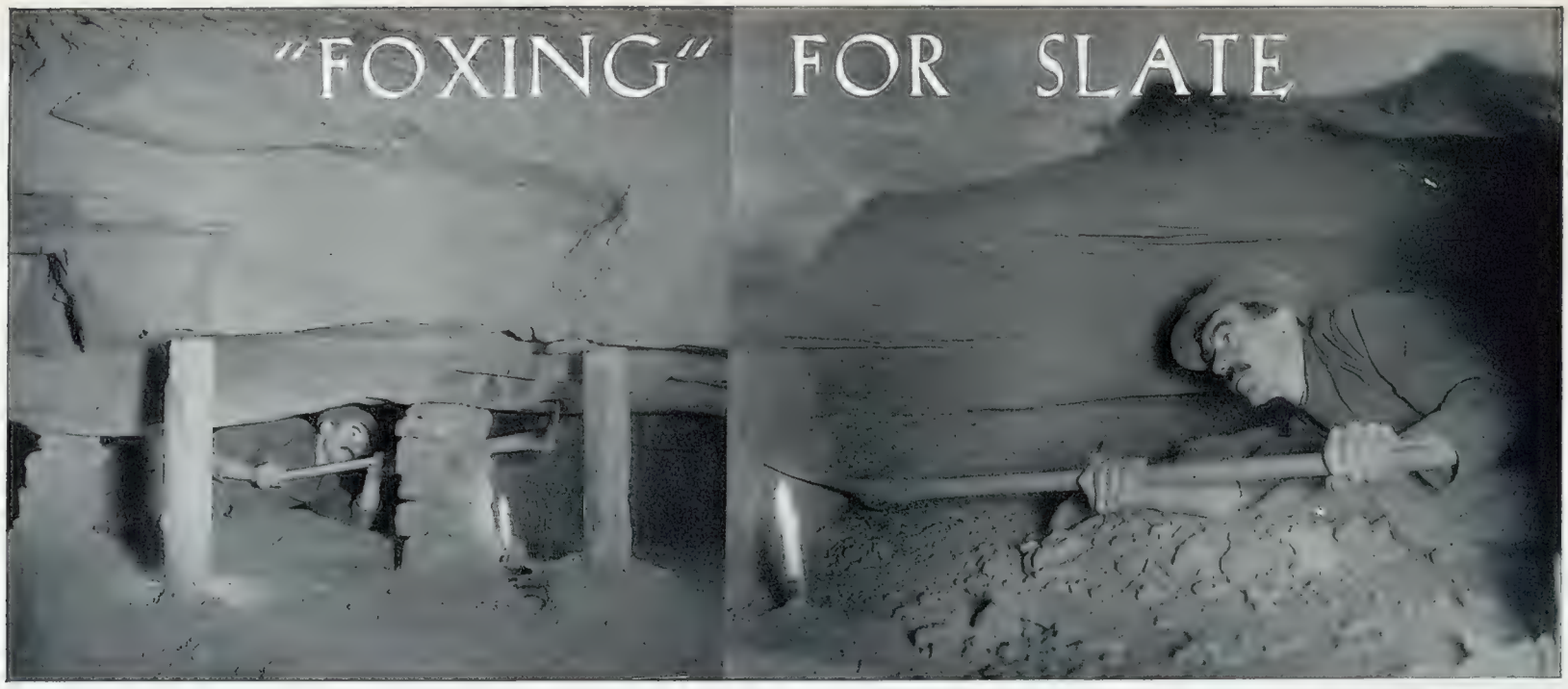
This play needs knitting together more closely. It is too full of irrelevant speeches and episodes, which slow down the pace. Miss Olive Blakeney, for instance, was given in Act II a long oration on the ludicrous red-tape that strangles the simplest requisition in the British Army. It was quite funny in its way; but it came at a moment when events should have been moving along to an irresistibly diverting climax. That climax never came at all.

However, there is plenty of laughter in this story of an American film-man who tried to "shoot" his episodes in an English barracks and to rope in the officers' mess as well as the rank and file, until an inquisitive general paid a surprise visit. Most of it was furnished by Mr. Reginald Bach and Mr. Ernest Jay as a couple of privates and not above a bit of graft. Mr. Henry Thompson's regimental sergeant-major was a gem of humour—just sufficiently exaggerated to be irresistible; and Mr. Cyril Smith as the quartermaster, with a lightning capacity for beer, was also a real person with the dash of absinthe necessary for farce. Mr. Reginald Purdell is a clever comedian whose work in previous Shaftesbury plays has been most valuable. As the American film-man he had his moments, but was, I think, miscast. I have never been an advocate for engaging American actors (which is not in the smallest degree a question of personal animus) at a time when so many of our own folk are unemployed; but if ever a part howled for an American actor, this one does. Since there is already an American actress—and a very delightful one—in the cast, such an engagement would not have involved breaking any all-British records.

The part of the heroine in *Orders are Orders* is a woefully colourless one. Miss Adele Dixon played it as if convinced of its worthlessness. That was a mistake. I have known charm and vitality put into an even poorer part than this.

MR. COCHRAN TO PRODUCE SHAKESPEARE: Mr. C. B. Cochran, London's "live-line" in theatrical production, is at last to produce Shakespeare. *The Winter's Tale* is the play selected, so once again, but in a new Cochran setting, we shall see Autolycus, Hermione, Leontes, and the rest

"FOXING" FOR SLATE



THE PROCESS OF "FOXING" FOR SLATE is a very ancient one. It consists in pecking away the sand which underlies the slate which may exist at a depth of thirty to sixty feet under the surface

About four miles west of the old-world town of Stamford lies the village of Collyweston, famous for its wonderful slate. Between sand and limestone, anything from 30 to 60 ft. underground, lies a bed of solid slate about 3 to 5 ft. in thickness. Here in this quiet little village a fascinating industry, far removed from modern mining methods, is carried on. During the winter months, the Collyweston slaters, from generation to generation, carry out the highly skilled work of "foxing" for slate. This term describes the pecking away of the sandy bed on which the slate rests until the bed of slate can be detached. This is difficult and dangerous work. As the slate is undermined, wooden props are inserted to support the roof.

The "foxing" proceeds until a sufficient quantity of slate has been undermined when preparations are made to induce it to fall. This is a thrilling and dangerous process. The props are knocked away and an atmosphere of tense silence prevails. No one is allowed to speak above a whisper as ears are strained to catch the sounds of cracking slate. The old expert hands can tell by listening to these sounds where the slate will fall first. Presently there is a deafening roar and a bed of solid slate, perhaps a hundred yards long, separates from the limestone roof and falls on the sandy floor, where it lies in big rough slabs.

Now comes the business of levering up the fallen "log" (as the slate is called in its natural state) with crowbars and standing it on end on the sandy floor. With a blow from a huge hammer the "log" is broken across in half. Wheelbarrows are then employed to convey the "log" to the bottom of the shaft, whence it is hauled to the surface by a windlass. Now Nature is called in to render assistance, and the adjacent ground known as the slate patch is covered over with "log" of various shapes and sizes, leaving a clear space round each. Every evening, when there seems the slightest chance of frost, men with hand-bowls dash water continuously at the edges of the "log," that the water may enter the veins ready for the longed-for frost, which by expansion loosens the slate layers and helps to complete the work. After the frost has performed its part a shelter is put up, and skilled slaters seated beneath its shade get to work, and with a few deft taps of the hammer along each vein split the slates into their natural layers, trim and sort them into different sizes, and peck a hole through each slate for the necessary nail. The finished slates are then arranged in "lots," ready for the prospective buyer. D. T.

SLATE WHICH HAS BEEN BROUGHT UP FROM THE MINE is laid out on the slate patch in such a way as to leave a little space between each. The rough slabs are splashed with water whenever a fro t is likely to occur

THE SLABS OF BROKEN SLATE are brought to the surface by a very simple type of winch

WHEN FROST has begun the work, expert tappers start separating the layers. They work behind a screen, as shown here

THE SPLIT SLATES are set up on edge as shown here, so that a prospective buyer can select the type of article which he requires possibly for a new house, the architect of which has planned a roof of delicate hue

CLEAVING A SLAB OF SLATE requires a great amount of skill. Each slate is trimmed and pierced for roofing purposes

FROM THEORY TO PRACTICE: The youth of both sexes in Hirzenhain tears gladly from school to the flying fields. Even the school is largely devoted to aeronautical instruction, but practice proves ever more appetizing to boys—and girls—than dry-as-dust exposition

The VILLAGE of AVIATORS

HARD AT WORK: The young folk of the village have made themselves a workshop and hangars out of disused military huts

EVEN THE TOYS ARE AERIAL in Hirzenhain. Kites, darts, gliders, and aeroplanes—all is grist to the mill of enthusiastic air-mindedness

SCIENTIFIC INSTRUMENTS are used in gliding as in ordinary flying; and headgear *à la* crash helmet are also *en règle* in Hirzenhain

THE VILLAGE SCHOOL specializes in the building of mode aircraft—a course now incorporated in the regular curriculum

A HOME-MADE WIND-GAUGE —a very necessary instrument in gliding—used by one of the unusually air-minded inhabitants in Hirzenhain

FATHER AND SON: Herr Schäfer, a teacher who was responsible for the inception of the flying movement in the village, teaches his own child

AIR-MINDED: One of the boys of Hirzenhain. This is a very typical cast of face in the village—which has adopted zip-fasteners

In Nassau, nestling against the southern spur of the Rothaar Hills, away from the highway along which pass the hikers and excursionists, lies the village of Hirzenhain. Among its inhabitants, who scarcely total a thousand, are many unemployed miners and quarrymen, but nevertheless its Aviation Society can call two aerodromes and three large aircraft hangars with seven gliders of its own. The entire village is in the grip of a passion and devotes every moment of its spare time to gliding.

Just like the Chess Village in the Mark, where the very children are taught the game, in Hirzenhain even the very youngest are trained in flying and aircraft building by the village teachers and the priest.

Model-making forms part of the school curriculum, and from every high point around the village the boys and girls of Hirzenhain fly their ingenious models. The youths and the men work and build in a bright workshop on proper sized machines which they test themselves on the steeply-sloping sides of the Schelde and Ranzenbach Valley.

There is scarcely one who does not wear the German Glider's badge in his buttonhole. But even in Hirzenhain they started on a small scale. They read of the glider flights on the Rhone, and, unhampered by previous experience, set to work to build an airplane of their own. Solid wood, iron and cardboard were used, fingers were frozen to the bone in an old shed, fingers were cut and nails smashed, but to-day everyone in the village is an expert, who is quite as much at home with plywood, steel wire, cold glue and tensioning screw as with pick and drill.

The airplanes are beyond reproach. A game has become a sport, as yet unspoiled by the chase after records and prizes. Flying days in Hirzenhain are a people's fête and often a real family affair, because three or four brothers sometimes form their own flying community, which has saved and worked at home. When old friends meet in the café, flying is the alpha and omega of the conversation, when father has to render an account of the progress made by his sons.

During Easter the young flyers of Hirzenhain successfully competed against gliders from other localities. Hirzenhain has become a valuable flying ground.

GUINNESS

FOR STRENGTH

G.E. 263. A.

A pleasant motor road by a Lapland river

The Standing Stones of Stenness look their best at sunset

TWO NORTHERLY LANDS

LAPLAND FOR A HOLIDAY

Its Unusual Attractions Now Accessible to the Tourist

Described by A. SMILES

Those people who hold that the best holiday is a complete change should go to Lapland. Its scenery of lake, river, and forest is completely different from that of England; so is its vegetation, so is its invigorating air. There are surprises to be met with daily. In the summer there is no night; the roads are intersected by ferries, all hand-worked and all free; the roadmen work in gloves; not only cattle and horses wander loose about the roads but also reindeer, splay-footed and high-rumped; a Lapp lady is about 4 ft. high; porridge is offered as a pudding course.

For two months in the extreme North the sun never sets, but the light is even more wonderful farther South, where the sun sets only to rise again immediately, and the sky is aglow for hours. In this astonishing country, where babies play outside at midnight and men come home from their work at 6 o'clock in the morning, there seems no real necessity for sleep.

Lapland has been known to the English fisherman for years, but it is only lately that the country has been opened up to the ordinary tourist. It is now possible to motor from the Gulf of Bothnia to the Arctic Ocean, as the road is completed, and there are petrol pumps at regular intervals. You can if you like take train to Rovaniemi, and there join the mail-bus which goes north daily, carrying passengers. The Finnish Tourist Association (State-aided) has thrown a network of small inns over the whole country. These are connected by telephone; before the traveller leaves one inn his room is booked for him at the next. These inns, although so remote from the world that they must bake their own bread and roast their own coffee, are able to supply clean rooms and well-cooked food at a small price. A bedroom costs from 12–50 Finnish marks (1s. to 4s.); lunch or dinner, 12–25 marks. Several European languages are often spoken in these hotels, but they are purely Finnish in character; the decoration is Finnish, the food is Finnish, the waitresses wear national costume.

A Lapland waitress at a roadside inn

A good idea of Finnish Lapland can be got by breaking the journey several times on the way North. Rovaniemi, the business capital of Lapland, has no fewer than three hotels, and many shops. Here you can buy maps, English novels, and Lapp souvenirs—knives and bags, rugs and shoes of reindeer fur, napkin-rings and thimbles of reindeer horn, reindeer antlers to fasten on your car for no self-respecting motor-car goes home without this dangerous decoration, to show it has really been in Lapland. At Vuotso, the frontier of Lapland, where passports must be seen and stamped, there are native huts by the roadside, and Lapps trying to sell fox and bear skins. At Ivalo there is an awe-inspiring bear's lair, and an excursion can be made to Lake Mari, where on certain Sundays the church is crowded with Lapps, who have come long distances by boat. From Salmijärvi a motor-boat can be taken to the picturesque Lapp village of Boris-Gleb; thence into Norway, to join the Kirkenes Road. The last inn is at Linnihammari, on the Petsami Fjord, where the road ends. It is a short walk over the cliffs from here to the Arctic Ocean, where snow lies, and the cuckoo calls late on into the summer.

Only the fisherman or naturalist could content himself for long in these hamlets of Lapland. There is no amusement, but as there is no house too humble to have its own bath-house (sauna), the evening can be very happily spent in having a Finnish vapour bath. You get yet another surprise when you are given a freshly gathered bunch of birch leaves with which to flagellate yourself and stimulate the skin.

Opinions differ as to the best time for visiting Lapland—June and July for sun, August for bilberries (and mosquitoes), September for cloudberries. Those who know Lapland best say that March is the most delightful month—when the sun sparkles on the snow and the journey from Rovaniemi to Petsamo is made, not by prosaic mail-bus, but by the mail sledge. Most inns remain open during the whole year.

THE CHARM OF THE ORKNEYS

Islands for the Artist, Archæologist, and Botanist

Described by F. PITT

Blue water to the right, blue water to the left, a neck of brown heathery land, and on it, gaunt and grey, standing immense against the sky, the great stones of Stenness.

It is thus that the visitor to the islands of the Orkney group sees that wonderful prehistoric remain which is sometimes called the Ring of Brogar, but which is otherwise known as the Standing Stones of Stenness.

It lies slightly to the north of the main road from Kirkwall to Stromness, on the narrow strip of land which divides the Lochs of Harray and Stenness, being situated on a mound, so that the great stones seem to be overlooking the islands and frowningly watching the modern traffic that speeds along the distant ribbon of road.

To one visitor at least it was a far more awe-inspiring spectacle than the famed monument on Salisbury Plain. Stonehenge woefully disappointed me. Stenness made me feel the most insignificant scrap of humanity at the foot of this grim reminder of bygone ages and bygone people.

Two of us had come along that winding road, past neat little cultivated fields, past brown wastes, and by land on which golden gorse and blue lupins vied in beauty of colouring. Oh! the glory of the lupins, scattered here and there on the heathery land in banks of misty purple-blue, flanked, as I have said, by gorse so golden with bloom that even a bee could hardly squeeze between the flowers; and all set off by the greeny blue of sea and loch, the purple of distant hills, and far off islands etched in yet more delicate hues, with farther still the heights of Hoy carrying a few wisps of white cloud.

Such was the scenery on the road from Kirkwall to Stromness, but there was neither golden gorse nor blue lupins to soften the austere majesty of the great stones, only the feathery whiteness of coton grass in the boggy hollow of the ditch which surrounds them.

Some of the great blocks lie prone upon the ground, but the majority stand proudly indifferent to winter storms and summer suns. The circle appears to have been a simpler erection than that at Stonehenge, just huge blocks of scarcely trimmed stone placed on end—those on Salisbury Plain were dressed into a rectangular shape, with transverse blocks placed on top—but none the less impressive for that.

The Orkneys abound with prehistoric remnants, stone rings, "Picts houses," and ancient relics of this type being plentiful. The islands bear evidence of having supported a considerable population in those long ago times, yet the people, their lives, loves and deaths, their wars and their conquests, are completely lost to us, so that we have no token of them save these remains.

The two of us sat in the shadow cast by one of the great stones of the Ring of Brogar, while Arctic terns, most beautiful and spritely of birds, wheeled overhead, an oyster-catcher flew whistling by, and a swan fed on the blue loch. We looked out over the Loch of Harray and wondered about it all. Did these primitive people come rowing over water so blue as that? Did some great man among them see the possibilities of the site, plan this temple to the wonders of the universe, and set his followers to work? Did he teach his savage legions how to trim, drag, heave and lever the great blocks into place? And did they all work and slave there while the white terns wheeled overhead as they were doing now?

Who knows how the great work was planned and executed? The brains that schemed it have long lain beneath the soil, but the work endures to awe and humble the beholder and make him realize that the passing of the centuries is but as seconds ticking away on a watch—a few more ticks, and where will be the present proud memorials? Will any of our buildings and monuments endure as long as have these great gaunt stones of the forgotten islanders?

One of the greater stones at Stenness in the Orkneys

Some Very, Very Young People

This question of clothes is a serious one indeed to the very small person who has a dignity to sustain at the dancing class. One feels certain of her approval of this charming little pink satin frock with its pin-tucked bodice and dainty insertion trimming. A very important accessory is the small matching shawl, so useful for "sitting out"

Diana, who is taking her ease in the foreground of this group above, is the smallest member of Mr. and Mrs. Horace Elgin Dodge's family. David is another important member and is also in this group with his mother who, before her marriage, was Miss Muriel Sisman, of Detroit

Right—

This adorable person has a poise which the advances of the camera-man seem unable to disturb. Her taste in dress is demure and charming—a cloud of pale tulle and coloured ribbons high waisted in the best manner of to-day was her choice for this occasion

Another very dainty confection in white muslin, which has rows of delicate pin tucks on the diminutive bodice and puff sleeves, as well as on the deep hem. This is a back view of the dress which fastens with tiny buttons

Among the very recently arrived is Geoffrey, the son of Mr. and Mrs. James G. Connolly. His mother was formerly Miss Eileen Starr, the Australian singer, and at the baby's christening many Australian visitors were present

Whilst "seeing the sights" for the very first time, the baby daughter of Lady May Abel Smith was detained for her picture. She is, of course, the daughter of the former Lady May Cambridge and granddaughter of the Earl and Countess of Athlone

THE WORLD of WOMEN

DECORATING THE CHAPEL OF ST. PHILOMENA: Miss Constance Rowe decorating the walls of St. Luke's Catholic Church, Pinner, with a series of frescoes and mural paintings which were dedicated last Sunday

BRITISH WOMEN GOLFERS LEAVING FOR SWEDEN: A party of British women golfers are taking part in the Swedish Golf Championship. They left St. Pancras a few days ago for Sweden where, after the championship has been decided, they are to make a tour of Swedish golf courses

A SUCCESSFUL AUSTRIAN WOMAN FENCER: Helen Preis has just added to her laurels by scoring heavily at the Olympic fencing contests. Recently in Paris she triumphed over the best girl fencers of fourteen other countries.

A REMARKABLE THIRTEEN-YEAR-OLD HORSEWOMAN: Miss Pauline Jones celebrated her thirteenth birthday a few days ago at East Grinstead. She scored her fifteenth successive win of the season on Friday of last week

CHINA ON THE TENNIS COURT: This little Chinese girl, Miss Gem Hoaning, is eleven years old. She has been playing in the tennis tournaments at the Queen's Club

AN ATTRACTIVE WIRE-HAIRED FOX TERRIER: Miss J. Abel is here seen preparing Tanyard Teddie, a very attractive looking wire-haired fox terrier, for exhibition at the recent Tunbridge Wells Dog Show

ALL READY TO RESCUE: This fine team of six St. Bernards posed with this little girl two days ago at the Abbots Pass Kennels, Leigh, near Reigate. All the six have won prizes for Mrs. Staines who owns the kennels

BRITISH CARS ABROAD: An impressive view of the enormous Legislative Assembly building at New Delhi. In the foreground are seen a Morris Major Saloon, two Wolseley Saloons, and a Morris Commercial Six-wheeler Saloon

GATHERING HAY AT 20 M.P.H.: A novel way of speeding up work in the hayfield has been found by a farmer at Donhead, Wiltshire. By fixing a large wooden "comb" to the front of his car he can gather and carry hay at 20 m.p.h.

WHERE THE CARAVANS WILL REST: Many caravaners will be journeying to Minehead for the occasion of the Caravan Rally which will take place there next Saturday, August 27. The latest 14 ft. 6 in. four-berth Eccles caravan shown above will be represented

THE AUTOMOBILE'S DR. VORONOFF: A new industry, the resurrecting from scrap heaps and the running of antique motor cars, has been developed by Mr. C. S. Burney at Brooklands. He is speeding along in a "new" old 1899 Benz

A CATHEDRAL ASPECT is given by the arches of the new Underground extension at Arnos Grove. These arches are just wide enough to admit a car

THE PETROL WORLD

By A. PERCY BRADLEY

(Special Motoring Correspondent to "The Sphere"; Clerk of the Course, Brooklands)

ROAD SIGNALS.—Quite a fuss has been made of late on the subject of inadequate or wrong road signals. The Minister of Transport has been telling us that we should persuade our wives to put us through an examination of the signals given in the Highway Code. That may be quite a good idea, although the Minister forgot to help those lonely bachelors by advising them as to who should be their examiner. Quite recently I had the great pleasure of meeting Mr. Pybus, and although I do not wish to make comparisons between the various individuals who have held the responsible position of Minister of Transport, I must say that I was more than usually impressed with the sound common sense and the human outlook on matters which Mr. Pybus displayed during our conversation. I venture to suggest to him that he would make the roads much safer and save motorists a whole heap of trouble if he were to revise the road signals which were drawn up by his predecessor and which now appear in the Highway Code. When I say revise I really mean cut out more than half of those laid down. First of all I am all in favour of drivers developing the maximum of road sense and of controlling their cars intelligently. I would much prefer that there were no road signals given by other drivers, then all of us would have to be far more alert, and would be compelled to drive with even greater caution than we exercise at the moment, because we should never be certain what the car in front was going to do. That, however, is a counsel which I feel certain will not meet with official approval, and so I am compelled to base my remarks on the assumption that some definite road signals must be authorized and given. So far as I can see the only real useful signal is that to be given when a car wishes to turn to the right. When the driver desires to turn off to the left he should be so close to the left-hand kerb that no one should be able to squeeze in on his near side. I can, therefore, see no earthly reason why he should give any signal of his intention in such a case. His car merely disappears and the drivers behind are in no way inconvenienced, and no danger is caused.

NO EMERGENCY INDICATIONS.—Practically every modern car to-day is fitted with a stop light, so that when the brakes are applied the drivers behind are duly warned by the lighting of a red lamp. Surely nothing more is required, and in any case people who follow behind another car should keep a respectable distance away so that in all ordinary circumstances there is no danger of their running into the rear of the car in front. When the driver of the car in front is confronted with a real emergency, and all brakes have to be applied with the utmost speed and strength, the cars behind are then placed in the greatest danger, and it is precisely on such occasions that no driver can possibly give warning to others by means of signals that any thing unusual is about to occur.

The signal to wave other drivers on is, in my humble opinion, most dangerous, and I, for one, who have the greatest desire to keep my neck uncracked, never take any notice of it. It is obviously impossible, except for an expert, to tell the driver behind whether it is safe for him to overtake. I guarantee that seven times out of ten when this signal is given an accident would occur if the driver behind acted on the advice thus tendered to him.

Again, I would suggest to Mr. Pybus that he should sanction, or better still, insist, that the signals such as he desires to retain should be given by mechanical means. There is nothing better to indicate the desire of a driver to turn to the right than one of these illuminated arms which shoot out into a horizontal position from the side of the body. They are universally used in Berlin, and in addition to being quite clear they are more easily manipulated than the driver's arm itself.

A DILEMMA OF THE ROAD.—The other day I was unlucky enough to find one of my back tyres punctured. It would, of course, happen when it was raining and also when it was dark. I was nowhere near a garage and, as I had a long journey in front of me, I could not avoid undertaking the operation of changing the wheel. I found the jack and the handle and proceeded with the job. After groping about in the dark I eventually placed the jack in position and raised the car up. Unfortunately the jack came to the end of its travel before the punctured tyre was clear of the ground. Faced with this situation, I unscrewed the jack, only to find that it refused to come down. In desperation I pushed the car forward off the jack and it shot out like a shell from a gun but, fortunately for me, I was not in such a position as to get in its path. I made another effort and found a portion of the chassis lower to the ground, so I placed the jack under it, which enabled me to raise the car slightly higher than before. The punctured wheel was easily removed, but the pumped-up spare refused to go on nicely because the hub was not sufficiently high from the road. After much swearing and banging of hammers, to say nothing of a spoiled suit of clothes, the spare was placed in position.

In these days when punctures are so infrequent motorists are apt to take it for granted that the jack is a good one and it will do its work when required, but, as I found to my cost, manufacturers have likewise been lulled into sleep because punctures are so few and far between, with the result that things happen as I have

(Continued on p. 286)

ON BOARD AND ASHORE in the Club House and elsewhere the most fitting hospitality is the full, generous flavour of **Haig**

NO FINER WHISKY GOES INTO ANY BOTTLE

CONTINUATIONS

THE PETROL WORLD

(Continued from p. 284)

related. Surely we have arrived at the time when every car should have a proper permanent jacking system. We cannot all afford chauffeurs, nor can we always find a friend to do this kind of dirty work for us, and so car makers should allow us to sit in our driving seat, press a button or turn a switch, and the engine would gently but surely do the rest. I may be proceeding just a little too quickly, but we really should be given a jack permanently fixed close to each wheel and this should be operated by some convenient gear which would prevent us spoiling our clothes, disturbing our tempers, and wasting our time. Such a development cannot help coming, but I venture to suggest that the first manufacturer to standardize such a convenience will reap his due reward.

A.A. AND R.A.C. NEWS.—Visitors to the New Forest are warned by the R.A.C. that it is contrary to the by-laws for cars or motor-cycles to be parked in the Forest after sunset. The Forest authorities report that the number of cars parked after dark has increased considerably during this summer and that unless the practice ceases it will be necessary to take steps to deal with the offence. All R.A.C. guides patrolling in the district have been instructed to warn motorists who may be parking during prohibited hours. One of the many important functions carried out by the Engineers' Department of the R.A.C. is the inspection of second-hand cars for members proposing to purchase, and also of cars after an accident or breakdown. For the greater convenience of members, engineers have now been appointed by the R.A.C. in all the provincial towns in which R.A.C. branch offices have been established and these inspections, therefore, can be carried out with the utmost expedition. The time saved by this innovation is of great value as it enables a bargain to be clinched quickly, or in the case of an accident where a claim on an insurance company is involved, to include details of the damage with the actual claim form.

The Automobile Association has just completed an analysis, on a percentage basis, of the figures published in the Home Office Return of Motoring Offences (England and Wales) for 1931. By this means an interesting insight is given into the most common causes of prosecution, and it is made quite clear that the vast majority of proceedings instituted by the police were in respect of minor technicalities having little or no bearing on the question of public safety. The A.A. analysis reveals that of the 339,144 cases reported, 19·014 per cent., or nearly one-fifth of the total, were in connection with lighting, whilst 10·701 per cent. were for obstruction. Driving licence offences come next with 9·166 per cent., careless driving 8 per cent., whilst excessive noise is fifth on the list with 7·704 per cent. The fact that the prosecutions for manslaughter and causing bodily harm constitute ·017 per cent. and ·007 per cent. respectively definitely refutes the allegations so frequently made against motorists by prejudiced parties. This also applies to the number of cases dealt with for driving whilst under the influence of drink or drugs and reckless driving—·628 per cent. and 3·867 per cent. Generally the official statistics bear out the contention of the Automobile Association that since the Road Traffic Act abolished the 20-mile speed limit the standard of driving has consistently improved, although the speed of traffic generally has increased.

RUBBER-NECKING ROUND LONDON

(Continued from p. 269)

looks kinda dilapidated," said Miss Milwaukee adding, as she saw a couple under a tree, "Yet maybe it's just like any park." Several children were playing with bats and balls in Kensington Gardens. "That is the English game of cricket," said the guide sadly. In the distance we could see Kensington Palace where Princess Marie Louise and Princess Helena Victoria live. "And very good women they are, too," said the guide very properly, "they spend all their time in good works."

Rotten Row in the distance was next explained, and then we crossed the Serpentine, which really looked rather like the Wannsee with all the bathers and row boats. "Some of the mothers still ride side saddle," added the guide apropos the Row, as we drove out towards the Albert Hall with everyone craning to see the American Ambassador's private house in Prince's Gardens.

An hour then followed in Westminster Abbey. I am ashamed to say it, but I had never before seen the Chapel of St. Edward, nor even the Coronation Chair with the stone of Scone and the carvings of Westminster schoolboys. Nor had I ever entered the Henry VII Chapel—with the banners of the knights and its marvellously carved stone ceiling. But after that the spirit again grew weak and I went and talked with the driver of the charabanc outside. And as we talked I thought, perhaps boastfully, what a much better tour of London I would plan out if I were a tourist agent. No, it would not be all night clubs. But I would certainly drive them all along Piccadilly and round Piccadilly Circus and up Bond Street. I would show them Cartier's and the Embassy Club. I would show them St. Margaret's, Westminster, and tell them it was the smartest church at which to be married, with one or two anecdotes of brides and bridegrooms who were late. I would show them the Temple Church and the Crusaders' tombs. I would point out Child's Bank in Fleet Street where they used to have seats for favoured clients to see the processions. At Westminster Abbey I would allow them only half-an-hour, but would show them the wax effigies of Queen Elizabeth and Charles II and the Duchess of Richmond and her parrot. (Perhaps the guide was doing this while I was thinking it all out, but no matter). I would take them in for twenty minutes to one of the non-stop variety shows to sample English humour. I would give them at least ten minutes in the Tate Gallery and the Café Royal, and another twenty at the Wallace Collection and the London Museum (to satisfy those who had historical and artistic leanings). I would drive them up St. James's Street and show them the famous clubs, and point out a few old codgers in the window armchairs. I would show them the exteriors of the Ritz and the British Museum and the American Club. . . .

As I pondered on all this my eye fell on a programme for an East-end tour which included Limehouse—London's China-town. Well, well, well. Of course the guide could refer to Billie Carlton and Brilliant Chang, but what would they mean to people who come from the land of Al Capone?

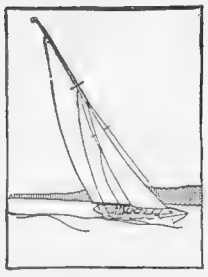
At that moment the party returned. "What have you learnt?" I asked Miss Long Island.

"Oh, I'm far too dizzy to tell you all," was the reply. "Let me see. Something about Mary Queen of Scots, and the Poets' Corner, and the Painters' Corner, and the Statesmen's Corner—all kinds of corners. Say, have you a lucky strike?"

I had. She puffed wearily as we drove up Whitehall, past the Cenotaph, and Downing Street, and the United Services Institute where the guide pointed out the window where King Charles had his head cut off. Once again we were back at our starting point.

"Say," said Miss Long Island, "if you aren't doing anything in particular, what about being my personal guide for the next hour or so, on the strict understanding that you don't show me any statues or tombs or corners?"

Ten minutes later we were drinking sherry cobblers at the Dorchester. "You know," said Miss Long Island ruminatively, "I believe that you are going to make a very good guide indeed."



Smoothly it glides and proudly; maintaining with every yard its name for silence; with every mile its name for speed; with every year its name for untiring service.

And Castrol, the tried and trusted servant of this monarch of the roads, rides with it; improving its silence, its smoothness, its speed; protecting it from wear; serving it as unfailingly as it will serve *your* car.

WAKEFIELD

CASTROL

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The Soap that protects your health

WRIGHT'S
COAL TAR SOAP

6D Per Tablet

Ramp of the Parliament, in the background the Museums.

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ITEMS of INTEREST

SUCCESSFUL ITALIAN CRUISING

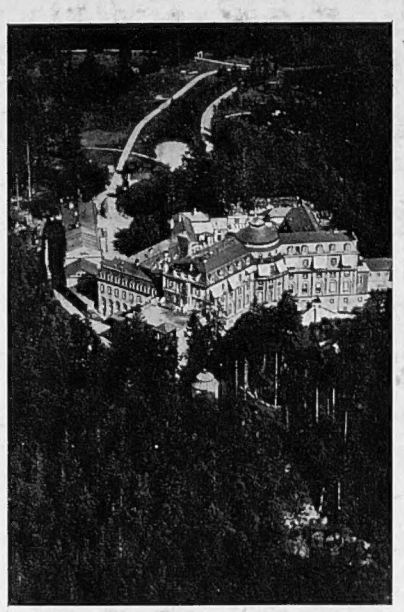
The notable success achieved by the Italian Line with the series of Mediterranean cruises of the *Conte Verde* this summer has induced this company to organize another cruise to the Levant by the well-known luxury transatlantic liner, *Giulio Cesare* (22,000 tons). The cruise will leave Genoa on August 28, returning to Genoa on September 15. The unusually attractive itinerary includes calls at Villefranche (Nice), Barcelona, Palma (Majorca), Palermo (Sicily), Phaleron Bay (for Athens) Istambul (Constantinople), the Island of Rhodes, Malta, and Naples. The *Giulio Cesare* has tourist, 2nd, and 1st class accommodation, and those travelling in any of these classes will find a very high standard of comfort, cuisine, and service. The minimum rates for the cruise from and back to Genoa are about £18 17s. tourist class, £26 1s. 6d. 2nd, and £44 18s. 6d. 1st class. There are festivities, sports, and recreations in each class, and attractive and inexpensive shore excursions are arranged at all ports of call. The London offices of the company are at 16, Waterloo Place, Lower Regent Street, S.W. 1, and 32, Haymarket, Piccadilly Circus, S.W.1.

A NEW SERVICE TO PALMA (MAJORCA)

The Union-Castle Mail Steamship Co., Ltd., announce that their M.V. *Llangibby Castle*, leaving Tilbury on September 8, will call at Palma (Majorca), Balearic Islands. On the homeward journey the S.S. *Durham Castle*, leaving Marseilles on September 8, will also call at Palma (Majorca). Monthly calls will subsequently be made. The fares will be £13 single, first class, and £7 single, third class. Return tickets will be issued at two single fares less 10 per cent.

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

The *Arethusa* Training Ship has sprung a somewhat serious leak which is being attended to at once. When the Society is exerting every effort to raise funds for a new ship to replace the old *Arethusa*, it is a sad blow to have to incur the heavy expenses of a diver to attend to this leak. Contributions will be gratefully acknowledged by the Secretary, 164, Shaftesbury Avenue, London, W.C. 2.



IN THE BLACK FOREST An aerial view of the Kurhaus Buehlerhoehe which is situated 2,500 feet above sea level near Baden-Baden. There are excellent facilities for trout fishing, tennis, and golf

DUMB-BELLS THROUGH THE SKY

(Continued from p. 265)

The little impulses travelling along the wires from the microphone at Broadcasting House might be measured in terms of fly power. On leaving the power amplifier the modulated carrier has reached the respectable figure of 50 kilowatts or 67 horse-power.

Should you happen to live within twenty or thirty miles of Brookman's Park or of any of the B.B.C.'s other medium-wave high-power stations you will no doubt have noticed that it is just as easy to obtain loudspeaker reception of the programmes by daylight as it is after darkness has fallen. But as the distance between the transmitting station and the receiving aerial increases, a greater and greater difference is noticeable between the day strength and the night strength of the transmissions. At places much beyond a hundred miles away it may be almost if not entirely impossible to obtain loud-speaker reception by day, though at night time there is no difficulty at all. The London Regional and National Stations, though their range in daylight is in the neighbourhood of a hundred miles, are regularly heard at night all over this country and over the greater part of Europe. The night range of a 50-kilowatt station may in fact be three or four thousand miles.

The reason why there are these big differences between daylight and the night time performances of stations using wave-lengths between 200 and 550 metres—the long wave stations such as the Midland National and Radio-Paris are far less affected—is an interesting one. The radiation from a transmitting aerial is actually of two different kinds. There is first of all what is known as the "ground wave." This goes out from the aerial towards all points of the compass, but it clings to the surface of the earth and follows its contours. It is on the ground wave that we rely for day time reception; but its range is comparatively short, for its energy is rapidly used up in overcoming the resistance that it encounters as it travels.

The second part of the radiation is called the "reflected wave," or "sky wave." It is also sent out north, south, east and west; but instead of following the earth's contours it slants upwards. In daylight this wave fritters away its energy in the upper atmosphere and is lost. But when darkness sets in a great change occurs.

At about 75 miles above the earth's surface there is a curious stratum of air known as the Heaviside layer. By day, the action of the sun's rays prevents this from being a good reflector of wireless waves, but once the sun has set the earthward surface of the layer quickly takes on excellent reflecting power and bends the waves sharply down to the ground beneath. Since the sky wave has far less opposition to overcome than the ground wave, it loses much less of its energy as it travels, and its range may therefore be very great. In summer time, when the hours of daylight are long (and particularly during the period just before and after midsummer, when nights are never really dark at all), the Heaviside layer seldom develops its full reflecting powers. The result is that the ranges of all broadcasting stations are limited, even at night time. But in winter the short days and the long nights give full play to its reflecting qualities, and the range of any station is enormously increased.

In this explanation of the process of transmission I have aimed at simplicity rather than minute technical accuracy. To sum up: When the London National sends out a "middle C" from the aerial there are transmitted trains of waves rising and falling nearly one-and-a-half million times a second, whose crests and troughs carry a copy of the 256 vibrations a second made by the vocal chords of the artiste in the studio. It is impossible in the space at my disposal to describe how the carrier wave is picked up by the receiving aerial and retransformed by the home wireless receiver and its loudspeaker into sound waves. I hope to be able in another article to tell this fascinating sequel to the present story.

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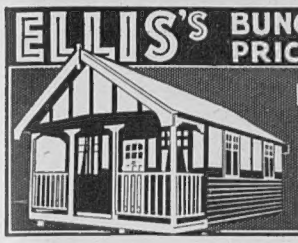

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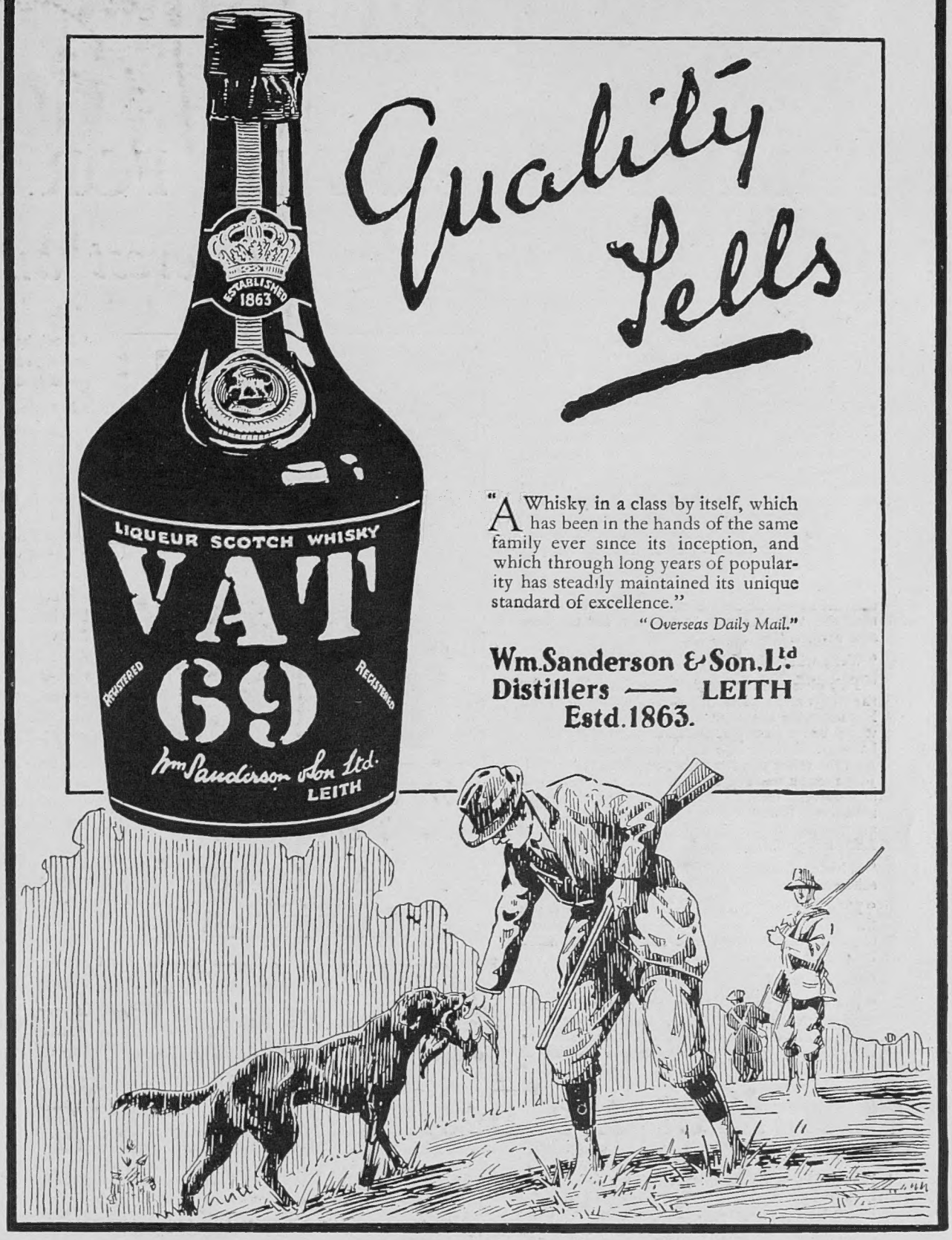

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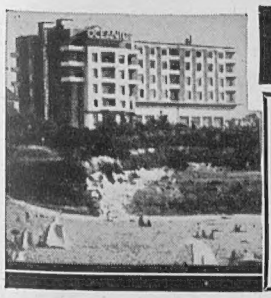

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A MAGAZINE MADE FOR AUGUST

With Stories that thrill, interest and enlighten

"The elephant rolled like a boat on a wind-less ground swell, and the sun beat down like hot brass. There was neither road nor trace of human footstep. The mahout, who was more than half-asleep, allowed the elephant to choose his own way in the general direction of the rock-ribbed hills. Chullunder Ghose sat upright underneath a black umbrella, because he could not otherwise, with any comfort, hold the thing between his fat face and the sun. Larry O'Hara sat on the other side of the howdah, also upright, because anything whatever interested him. He had the kind of blue-grey eyes that only sleep at night, and even then as trigger-lightly as a watch-dog's.

"Sahib," said the babu, "we have a proverb that the hypocrite asks always for the bird, but that the valorous man asks only for the bow and arrows."

"Well, what of it?" asked O'Hara.

"This obese and talkative babu, intimidated by the slings and arrows of outrageous fortune, is a Hamlet who has seen what U.S.A. Americans would call a lot of hot stuff, and a lot more cheap baloney. Life is like that: two-thirds hokum. And the other third is nearly nine-tenths stupid. Just about a tenth of one per cent. of life is hell and heaven, mixed into a drunken and beautiful madness. But that is enough. I am mad. You are mad. This elephant is mad. And so is Lalla Lingo. *Verb sap.*"

"What's wrong with the elephant?" O'Hara asked him.

"He obeys us. He could shake us off, and roll the howdah off, and run to where a hundred elephants are roaming wild and uncontaminated by a sense of duty."

"Lalla Lingo?"

"Is a man of many talents, without philosophy enough to cherish them beneath a sense of humour in the autocratic solitude he might enjoy if he were only not a propagandist. Think of him. He owns a village, whose inhabitants believe he is a god in an imported suit of Palm Beach reach-me-downs. It is an honour if he takes their women. It is privilege to them to build his house, and grow his corn, and bring him meat. He has his books, his European education, and an income that is ample for exotic needs. And yet he wants more. So he subsidizes murder—"

"We don't actually know that," said O'Hara.

"And he subsidizes the police—"

O'Hara interrupted: "That is also something that we can't prove . . ."

"CASE THIRTEEN" *by Talbot Mundy* proves that a little play acting is a useful thing, even in the Secret Service. A gripping story for an afternoon on holiday.

This beautiful signed portrait of

TALLULAH BANKHEAD GIVEN AWAY

with this issue

"Look here, old girl, I've been thinking it over and if you really insist I'm prepared to do all I possibly can to help you. . . ."

All Azalea's life reluctant people, looking shame-faced, had constantly come to her and said they were ready to do something for her that previously they had sworn they would never do.

In 1909, a mere Saul among prophets, on witnessing the defeat by Azalea, aged four, of her septuagenarian grandfather (educated Eton and Balliol College, Oxford; called to the bar in 1860; Q.C. 1871; King's Bench Judge 1889; Victorian to the backbone, irascible and unbending) in a battle of wills that ended in Sir Mervyn obediently crawling on her mother's dusty drawing room carpet beneath a moth-eaten tiger-skin rug, would have predicted a masterful career for the auburn-haired imp on whose bronze eyes anger seemed to encrust a greenish patina.

Nurses, their bodies stiffened by whalebone, their wills indurated and their wits sharpened by years of conflict with nursery mutineers, either walked the plank or laid down not only their arms but their entire personalities for Azalea to trample on. Other servants—even butlers who called her the little devil in their pantries—after suffering the pressure of Azalea's thumb in silence, only maintained that sturdy independence of character, which is the British domestic's birthright, by subsequently being covertly ruder than usual to Azalea's parents. . . ."

A good Society story by George Froxfield—"AZALEA ABDICATES" . . . a rather risky experiment in matrimonial strategy.

Get it at the Bookstall as you go on holiday

"CASE THIRTEEN" *by Talbot Munday*
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